AMERICAN GAS ASSOCIATION

Monthly

EMBER
1953

It's old stove round-up time!..time to shop...swap...and replace!

You can't beat the new automatic Gas ranges!

This New Freedom Gas Kitchen* features an automatic "CP" RCA ESTATE Gas range and the amazing new SERVEL Gas refrigerator that makes ice cubes without trays, and puts them in a basket automatically. See them at your Gas company or Gas appliance dealer's.

*Reg. A.G.A.

only Gas gives you...

The new Gas ranges couldn't be more automatic! Two clocks watch your cooking for you. One turns the oven on and off, cooks whole meals while you're busy elsewhere. The other times anything from a stew to an egg. But what really makes you love your Gas range is the way it cooks—like a chef, with delicacy and precision. Its pin-point simmer flame treats sauces with respect. Its high, hot broiling flame was *made* for steaks. It bakes so evenly you almost can't have a failure. Yet it costs less to buy, install and use!

Separate broilers

Built-in griddles

Instant on-off heat

GAS – the modern fuel for automatic cooking ...refrigeration...water-heating... house-heating...air-conditioning... clothes-drying... incineration.

AMERICAN GAS ASSOCIATION

• This four-color gas range advertisement will appear in the October 1953 issue of *Parents'* Magazine.

One of five compressor station installations on Texas Illinois Gas Pipeline Company system which connects Gulf Coast fields with the Chicago area. Photograph by Victor Knitter, The Peoples Gas Light and Coke Company

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ARE we in the gas industry prepared for the issues that lie ahead? Are we thinking as a highly integrated business that serves more than 26 million customers from coast-to-coast? Or are we absorbed day-to-day with problems on the local level?

Certainly, many gas companies have adopted the national approach. They are supporting the Gas Industry Development Program and are proving that they are valuable members of the community. Top executives of at least one large gas system hold special meetings at which they take hundreds of key employees into their confidence on basic problems and progress. More and more companies are realizing that what they do locally benefits or hurts the entire industry.

What is your company doing to accept the challenge? Are you wholeheartedly supporting the industry's national programs? Are you using market research to take the guesswork out of planning? What more can you and your company do to help build a strong management team?

JAMES M. BEALL
DIRECTOR, PUBLIC INFORMATION

JAC A. CUSHMAN
EDITOR

RICHARD F. MULLIGAN
ART SUPERVISOR

LOIS G. SCHNEIDER
NEWS EDITOR

EDITORIAL OFFICES:
AMERICAN GAS ASSOCIATION
420 LEXINGTON AVE., NEW YORK 17, N.Y.

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Straws in the wind

● Facts, figures and editorials form a barometer of an industry at work ●

▶ Welcome to the birth of "Straws in the Wind," a new feature department designed to give a broad picture of gas industry trends and thoughts that develop from month-to-month. We hope to continue this section as a regular feature of the MONTHLY if "Straws in the Wind" proves helpful to you, the reader. In future issues, we would like to include your ideas and suggestions on industry events. We invite your comment.

THE EDITORS.

Waiting for the word

▶ The growth, the future and the survival of our industry depend on the informative power of sound public relations.

Peoples Gas of Chicago has proved that it's true! Other companies, large and small, know it too! But where does the industry stand?

We are in the position of the athlete who hears the starter announce: "On your mark! Get set. . . .!"

We are waiting for the word "Go!"

Seven months have passed since nine points of action for a proposed A. G. A. Public Relations Program were announced. Since then, approximately 80 member gas utility companies have lined up solidly behind this progressive program. They already have subscribed three-fourths of the funds needed to start the program rolling. A number of companies are so eager to get the campaign under way that they have mailed their subscriptions to A. G. A. ahead of time.

While many companies have given their enthusiastic support, nearly 150 companies have yet to make a decision. Support from a mere handful of the "undecided" companies would put the program into operation. Ten of the largest companies would put the industry's public relations drive over the top!

Consider this fact—Gas is the only major fuel industry in the United States today that does not have a coordinated public relations program. It seems doubly urgent, therefore, that this gap be filled without further delay.

Other sections of the gas business have recognized their public responsibilities and their industry needs. Notable examples are the Gas Appliance Manufacturers Association, representing appliance and equipment makers, and the Independent Natural Gas Association, speaking largely for production and transmission companies. It remains for the gas distribution companies, with upwards of 25 million daily public contacts, to raise an articulate voice in behalf of the gas utility industry.

In the words of James F. Oates, "The gas industry MUST have a public relations program to survive and prosper!"

New England goes natural

▶ A five-year debate between Algonquin Gas Transmission Company and Northeastern Gas Transmission Company ended last month in an FPC decision allowing the two companies to divide the strategic New England market. The settlement is substantially the same as the one the companies recently proposed. It assures natural gas service to a major portion of New England this winter.

Prior to the decision, Northeastern had been serving communities in Connecticut, Massachusetts and New Hampshire allocated to it in 1950. Tennessee Gas Transmission Company will supply natural gas to Northeastern. Texas Eastern Transmission Corporation will serve Algonquin.

The development should help materially to strengthen the position of gas utilities in the Northeast. It also means that the Pacific Northwest, engaged in a dispute between so-called "American" and "Canadian" plans, is the last major area of the country awaiting natural gas service. At the end of 1952, 40 states and the District of Columbia were piped for natural. Two of the eight remaining states, Maine and Rhode Island, now will join the coast-to coast network of the natural gas giant.

Appliance outlook

▶ Concensus of manufacturer opinion taken by GAMA just prior to the Korean cease-fire is that gas appliance shipments for the year 1953 will total somewhat higher than in 1952. Largest increase was forecast for central house heating equipment (furnaces, boilers and conversion burners), shipments of which are expected to reach about 13 percent over last year.

Fulltime PAR director

▶ A. G. A. has appointed a fulltime staff member to guide the farflung promotion, advertising and research activities of the PAR Program. The new appointee, Otto E. Zwanzig, formerly director of the Association's Bureau of Statistics, will further coordinate the PAR Program and broaden its services to participating companies. Previously, PAR activities were managed on a parttime basis by John W. West, Jr., assistant managing director of A. G. A. Mr. West now assumes responsibility for all headquarters activities other than the PAR Program (full details in "Personal and Otherwise Section").

More sales-punching

▶ Through the years the Old Stove Round Up has served the gas industry well—corralling antiquated models and distributing thousands of shiny new automatic gas ranges. But in recent years the trend seems to be away from the "cowboy-oh-boying" type of campaign. Less emphasis is being placed today on cowpunching and more on sales-punching.

In the words of an old hand in the field of A. G. A. promotional publicity, "There's less stress on 'yipping' and more concern about 'shipping'." Gas ranges, naturally!

(See page 22 of the September A. G. A. MONTHLY for complete story on new Old Stove Round Up—a PAR Plan activity.)

Birth of a project

▶"Can you tell me what company manufactures a range with a right-hand heater section?"

Questions like this one have been pouring into the A. G. A. Utilization Bureau in increasing numbers. There is always someone, it seems, who wants information on the avaibility of a gas range with some particular feature or specific dimension.

Until last month, the Bureau had been forced to dig through individual manufacturer's catalogs to obtain the answer to each question. But now it is different.

Partly in self-defense, the staff mailed requests to all manufacturers of A. G. A. approved gas ranges for their latest range catalog information. Returns from this survey were compiled, at first for the internal use of the staff.

If it helps us at A. G. A., won't it be even more helpful to the industry? This idea appealed, and the chart "Special Features of Current Gas Ranges and Where to Get Them" was printed and distributed to sales managers of all member utility companies.

Thus, from direct contact with consumers and the germ of an idea, there grew an important project. Already more than 5,000 orders have been received from utilities, range manufacturers and magazines. One medium-sized gas company ordered 2,500 copies. A manufacturer requested 500 copies. A well known gas company plans to print the chart in its dealer publication. A home service representative reports that she would be lost without it.

It's a concrete example of one of the many ways American Gas Association serves the industry.

A first-class forum

▶"We're a pipeline company. Is there anything in A. G. A. for us?" Emphatically —yes! There's plenty now, and more is coming. (See story in "Personnel and Otherwise Section" on appointment of Curtis Morris to study A. G. A. facilities and services devoted to natural gas production and transmission.) The recently reorganized Operating Section has set up a dynamic program to cover all technical and operating activities encompassed within natural gas production, compressor station operations, underground storage, load dispatching, and large volume measurement. Through forum-type conferences, research, and the publication of technical articles and books, the Section provides a nationwide medium for the free exchange of information between men and companies engaged in related activities.

The tightly woven fabric of the gas industry was revealed at the Operating Section's first Transmission and Storage Conference last April. Of the 425 delegates, more than 100 were from gas distribution companies. The line of demarcation between different types of gas companies is getting less distinct every year.

Streamlining and simplification is the order of the day in the Operating Section. To increase effectiveness and at the same time reduce the burden on member companies, the Section's committee structure is being revised in an effort to obtain maximum results with minimum expenditure in time and personnel. The present 950 committee memberships are being reduced to about 600, utilizing the services of some 450 individuals. The aim is to keep committees as small as possible, while assuring representation from all interested groups and the achievement of specified objectives.

The Operating Section will make the initial presentations of its Award of Merit at the 1953 A. G. A. Convention. The Award is in recognition of the contributions of its members to the Section, the industry, and the public.

State your problem

▶How many readers know the real extent of the research program that the A. G. A. PAR Plan is sponsoring for the advancement of the gas industry and its public?

Did you know that in one field alone, domestic gas research, A. G. A. is working on 18 important projects? Six nationally known institutions are cooperating in these activities: A. G. A. Laboratories, Battelle Memorial Institute, Case Institute of Technology, University of Illinois, Purdue University, and U. S. Bureau of Mines. Investigations are being pressed in five different phases of domestic gas technology: cooking, water heating, heating and air conditioning, general utilization, and incineration.

Member companies are encouraged to help advance the science of gas utilization by pooling their experiences. State your problems in a letter to the A. G. A. utilization research staff.

Conference with FPC

▶Approximately twelve gas industry leaders have been invited to confer with Federal Power Commission on September 16 to discuss the possible usefulness of an industry advisory group to study regulatory problems confronting the Commission and the industry. Frank C. Smith, president of A. G. A., and H. Carl Wolf, managing director, are among the group.

Fertile territory

▶The present gas incinerator sales program is directed mainly at the residential market. But did you commercial gas men ever consider that there is fertile territory for this modern appliance in your own back yard—hospitals, banks, restaurants, department stores, office buildings—every type of commercial business faced with the problem of waste and trash disposal?

We suggest that residential and commercial gas men alike take fullest possible advantage of the new A. G. A. booklet "Let's Get Down to Brass Tacks on Gas Incinerator Sales." This PAR Plan production is cram-packed with helpful facts and pointers on a major and prestige-building use for gas. Contact the Residential Gas Section of A. G. A. for full details.

For natural gas only

▶Revisions to appliance standards to cover approval of appliances for use with natural gas only, at the manufacturer's option, are coming up for consideration by the Association's appliance requirements subcommittees. Prepared for water heaters and domestic gas ranges by the subcommittees, the proposals are to be circulated among the industry for criticism. Based on recommendations of the Approval Requirements Committee, the proposals include tests using a 1400 Btu butane air-gas mixture with primary air setting the same as used with natural gas. With satisfactory operation on both gases, greater flexibility of field operation is expected.

Traditionally, appliances have been approved only when they could be used with natural, mixed and manufactured gases when properly equipped and adjusted. This method of approval will be retained. These revisions in the appliance standards recognize the increased distribution of natural gas and problems of manufacturers who market in natural gas areas exclusively.

Development program

▶Keep your eyes on the Gas Industry Development Program—that hard-hitting campaign to promote gas appliance sales and to improve service, safety, research and public relations. In recent weeks, three new gas company activities have given further impetus to this campaign.

By the end of September, a series of regional Gas Company Development Clinics will have been completed. Each clinic has been designed to implement and increase the effectiveness of the fifteen point Action Program recommended to the membership by the A. G. A. Board of Directors. Invitations have been directed primarily to company executives responsible for carrying out sales, service and market research policies.

Clinic sessions have stressed the "how to do it" approach. Executives from companies with excellent or better-than-average records in particular fields have discussed informally various implications of the Action Program. Each talk has been

(Continued on page 20)

● *Are we letting other industries ad*

Market management by hunch or fact?

By A. W. CONOVER

President, Equitable Gas Company, Pittsburgh, Pennsylvania

In the past few months, our industry leaders have said in print and on the platform that the gas industry must "sell or shrivel". Is it true that the gas industry faces problems of greater complexity and significance today than ten years ago?

I don't know whether the problems facing gas company managements today are more fundamental or more complex than those of the past decade, but I do know we have plenty of problems in our company. The situation most gas companies are *really* facing today, I think, is a crisis in management.

It is undoubtedly true today that we are facing a battle to hold our kitchen load. In most of our companies, we still have heavy heating demands. This condition continues to create many headaches for us. Our expenses have a tendency to rise as fast as our revenues are increased by additional sales or by rate increases.

As always, we are beset by growing pains, labor problems and regulatory obligations. In Pennsylvania, we recently have been experiencing some legislative problems arising from the attacks of the competitive coal industry on one of the fundamental economic phases of our business—underground storage of gas. It all adds up to the pressing need of the times, described by two words—*better management*.

If we at Equitable had exercised more foresight, we might have anticipated our legislative underground storage problems and might have done a better job in acquainting our customers and our public about the "facts of life" concerning underground storage. Similarly, the gas industry as a whole, a few years ago might have foreseen the coming attack on our base load. However, most of us were too busy with other post-war and day-to-day problems to come to grips with this competitive danger until 1953.

A casual run-through of some of the problems facing most gas company managements today—market development, competition, rates, rising expenses, public relations, and gas supply—indicates that there are too many tasks for any one man or small group of men to dispose of effectively. In my opinion, the day of gas company conservatism is past—conservatism in the sense of waiting for problems to develop and stare us in the face in hopes that a solution will arise with the problems. Progressive gas utility managements must anticipate the difficulties that lie ahead and be prepared to do something about them before they become acute. To me, that means building an organization—discovering and developing capable men. The crying need today is for management men who can foresee some of the things that lie ahead and be prepared to meet them—instead of being amateur firemen rushing around to put out "business fires".

When I talk about discovering and developing management people, I am not implying that it is a new process. American

Prepared for presentation at meetings outlining the A. G. A.—GAMA Gas Industry Development Program.

ad of us in the art of gearing management to business and marketing facts?

business somehow has always found leaders with varying degrees of competence to fill its required corporate offices. Since the war there has been a great deal of talk, resulting in action in a few industries, to do something about the problem of discovering and upgrading management people. In fact, a recent investigation by some of our people shows that since the war there has been quite an upsurge in the number of universities and colleges that offer short-term, full-time management development courses.

For each of the past two years, we have sent two of our men to the Utility Management Workshop at the Harriman Campus of Columbia University. In 1952, there were 25 utility representatives present at the Workshop, six of whom were from the gas industry and 16 from the electric industry. Three represented other utilities. In 1953, there were 24 utility representatives present; three from the gas industry, 18 from the electric industry and from other utilities. There are at least a dozen other colleges that offer similar full-time executive development courses. It appears, however, that the gas industry is not showing as much interest in this phase of management development as the electric industry.

I hasten to admit that attendance at one of these schools is not a conclusive index of the gas industry's interest in executive development. It seems to me though that we would be reasonably safe in concluding that gas utilities are not showing as much interest in this phase of leadership discovery and development as our electric competitors.

I recognize that good management is compounded of many ingredients. We need more capable and broader trained management people. We also need to have them integrated into an effective management team.

I am a believer in the team approach to our management problems. The complications of modern-day utility operations, generating many new problems, have out-moded executive direction by the "lone operator" or by a few top decision-making people who attempt to deal with and solve all management problems. Further, capable management people welded into a cooperating team are not the complete answer, in my judgment, to present-day utility problems.

We need a better and more enlightened understanding of the gas business by all of our human resources—our employees. This requires full and continuous dissemination of management information through the organization.

Last, but by no means least in importance, we need to improve the batting average of our business decisions by learning to develop and use better factual information about our business. I realize that even after we have full and complete information, properly interpreted, there is usually an area for decision on most management problems that must be dealt with by relying on experience and, perhaps, even executive intuition. But insofar as possible, most management decisions should be buttressed by careful analysis of facts about the business, interpreted in unbiased terms so that the management team can understand their significance.

Market management is one phase of our business where I think the collection, analysis, and interpretation of both internal and external facts can be particularly helpful to a gas utility.

I became president of Equitable Gas Company in the early part of 1950 at the time when Equitable was separated from its former holding company relationship. Shortly after my arrival at Equitable, I was subjected to persuasive arguments by our marketing people, who pointed out to me that the company's marketing data was considerably out-of-date. They emphasized that while Equitable was going through a period of uncertainty as to its future corporate status, there had been very little done to keep the company's market facts up-to-date.

We were then facing tremendous demands from our customers for additional gas service, particularly in the residential heating and industrial markets. This insistent demand made it necessary that we seek as much pipeline gas as we were able to obtain. Of course, you are aware that most pipeline contracts are made on a 20-year-term basis and it was important to us to have reliable estimates of the market potentials in each of our markets to indicate how far we should go in contracting for additional volumes of gas. I found that our people had been preparing market estimates and forecasts of future sales possibilities for a number of years, but were basing such forecasts on incomplete and out-of-date information.

So in the spring of 1950, we initiated a market facts improvement program. The first project in the program was a census of our approximately 18,000 commercial customers. To do this job, we assembled 15 recent college graduates who were then available on a temporary summer basis. The job was completed in about four months at an out-of-pocket cost of approximately $12,000. I said we made a census—that means we visited every commercial premise in person rather than attempting to analyze a sample of our commercial customers.

Primarily, the purpose of making the commercial census was to define, with a practical degree of reliability, the maximum sales potentials in the commercial market. We needed this data to prepare dependable future estimates of sales possibilities in this market for the purpose of supporting any long-term contracts for additional supplies of gas.

In addition to obtaining information as to the maximum sales potentials in this market, we obtained a complete inventory of existing customers and uses of gas in the commercial market. For example, we found that the saturation of heating in this market was about 76 percent based on the number of customers, but 46 percent based on the potential heating sales.

In the end, we were able to classify the existing load by types of business, by types of operations, and by location on our distribution system. In fact, our summary report of this commercial market census shows that we were able to classify our commercial customers, including name and address, into seven general classifications and 231 sub-classifications. This detailed information, effectively and economically recorded on IBM punch cards, enables us to prepare almost any type of information regarding the existing commercial load that we could want in improving our sales policies for this market. We have frequently used this underlying information for the

A. W. Conover (r) proposes that the gas industry should strive to build up management strength and health

preparation of customer lists and user lists of various types. This specific and detailed data will continue to guide us in protecting this market against electric competition.

Second project in our market facts improvement program was a study of our industrial market. Accordingly, we initiated in 1951 a census of our approximately 800 industrial customers. The techniques and approaches used in the study of the industrial market were very similar to those we used for the commercial census. However, in this case we used six college-trained men instead of 15, supplemented by the guidance of our industrial contact men. Here again, the primary purpose of obtaining specific and detailed information about the potential uses of industrial gas, as well as about all existing uses, was to enable us to estimate our future gas requirements more adequately and more reliably.

As in the case of the commercial census, a by-product of this operation was a complete inventory of the existing use of gas by all industrial customers. From this analysis, we know that approximately 50 percent of all our industrial business has stand-by oil equipment. Similarly, we know that approximately 65 percent of our existing potential industrial load would have to replace heavy residual fuel oil. Thus, we know that the future sales possibilities in the industrial market are very closely tied to the price trends of these heavy grades of fuel oils.

Market data modernization

The cost of making the industrial census was approximately the same as that for the commercial census. True, we covered only about one twenty-fifth the number of commercial customers in this census. However, many of the industrial customers represented much greater gas consumption and had a multiplicity of gas-using operations to be classified and recorded. On several occasions, we have used the data from this industrial study to prepare estimates of sales possibilities in this market.

The third phase of our market data modernization program was initiated in 1952. This was a sample survey of all of our residential customers located in Pennsylvania. It was worked out in cooperation with the other two companies serving gas in the Pittsburgh area, each company paying a percentage of the total cost corresponding to its portion of the total customers included in the survey.

The sample represented about one-eightieth of the customers. In our situation, that amounted to about 2,400 calls. Our share of the total cost was about $11,000, but would have been about 50 percent higher if we had made the survey alone.

We had a two-fold purpose in making this residential survey. First, we wanted to determine the status of base load appliances in the residential market, particularly as to how it is threatened by electric competition. Our second purpose was to bring up-to-date our information regarding the number of different types of gas heating installations on our lines. At the same time, we wanted to obtain sufficient information about competitive heating fuels and installations so that we could estimate with a high degree of reliability the remaining heating potential in the residential market.

You may wonder why we used a market census technique in connection with two markets and the sample survey technique for our residential market. I have been assured that the sample survey in our residential market produced data possessing a high degree of reliability. One convincing proof of this is the fact that when the annual consumptions for the previous year of each of the approximately 2,400 residential customers in the sample were added up and divided by the number of customers, we arrived at almost exactly the same average figure that our operating statement showed for the same period of time. The actual figures were 133.7 Mcf from the survey and 135 Mcf from our operating statement.

Further, it was pointed out to me that the sample survey disclosed almost identically the same number of homes occupied by colored people on our lines as did the 1950 Federal census. Therefore, we feel confident that either the census approach or the sample survey technique is reliable in the hands of competent marketing men. The choice of method to be used *in a particular situation* should be left up to such people after the objectives have been clearly defined by management.

The results of our residential survey have more than justified our investment. There have been many by-products from the project. We are now in the process of developing average annual use data for various appliance combinations, which we will use to improve our forecasting and budgeting practices.

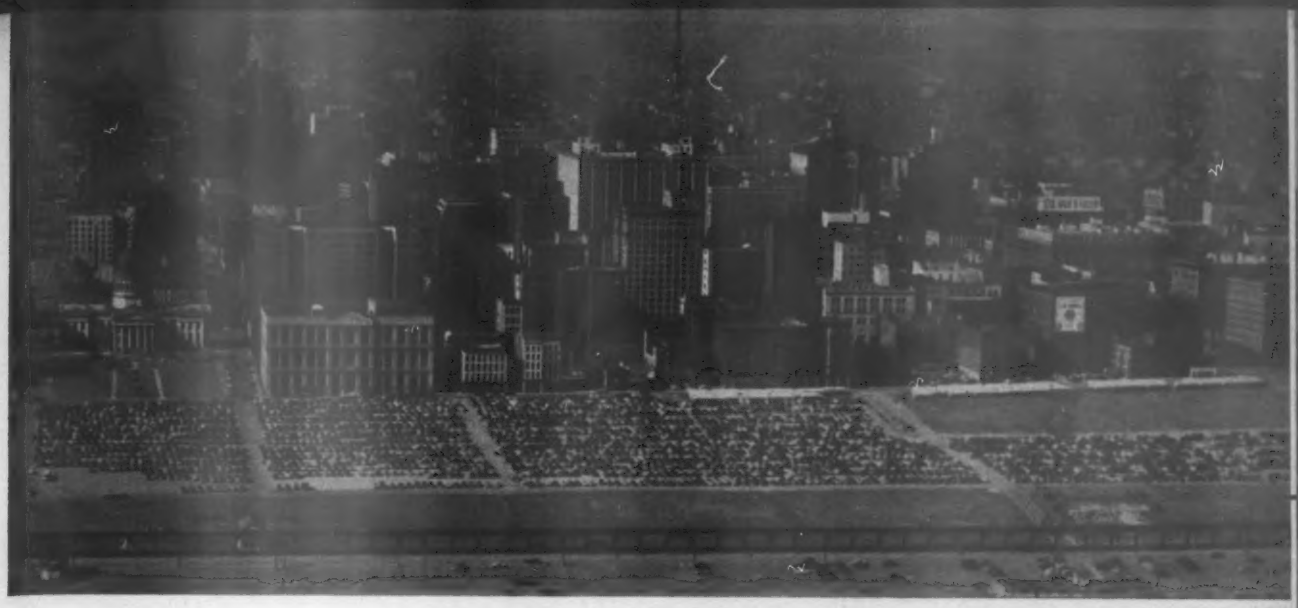
We have been able to measure the inroads of electricity in the home. At the end of 1952, we found that we had already lost about five percent of our gas ranges and less than one percent of our gas water heaters to electricity. These figures are not too alarming in themselves, but the survey also disclosed that in the houses built since the war we have been losing much higher percentages of gas ranges to electricity. For some house values, the losses run as high as 20 percent to 30 percent.

The survey also disclosed that we had a heating saturation amounting to nearly two-thirds of our residential customers. We were able to estimate that at the end of 1952, we had 30,000 good central heating prospects left in our residential market exclusive of new construction.

There are many more management guides that we have obtained and will continue to obtain from this study. I refer you to our marketing people for details of these findings.

The real need of gas utilities today is improved management practices supported by good human understanding and guided by adequate business facts. In our case, we believe that this "philosophy of management" applies not only to the problems of marketing management, but also to the problems

(Continued on page 53)



Convention tops industry agenda

Almost every conceivable facet of gas industry operations—from regulations to research, sales to storage, merchandising to gas measurement—will be probed at the thirty-fifth annual convention of American Gas Association in St. Louis next month. Thousands of delegates from every corner of the United States will use the three-day period from October 26 to 28 to gather information and exchange experiences in person-to-person contacts.

A special attraction for convention-goers this year will be an address, "Five Months as Chairman of the Federal Power Commission", by Jerome K. Kuykendall, FPC chairman designated by President Eisenhower. Mr. Kuykendall will discuss current Commission problems pertaining to the natural gas industry and the relation of these problems to gas distribution companies. The new FPC chairman assumed office in Washington, D. C. on May 15 following service as chairman of the Washington (State) Public Service Commission.

This will be no "off-year" convention. There are too many pressing issues that require serious thought and study, subjects such as the Gas Industry Development Program and the effect of the Korean cease-fire on sales. This need for hard work and sound planning has been recognized and at least one major new departure has been added to the program. Spokesmen will sound off on the industry's future at a unique "Coats Off for Action" luncheon at 12:30 P.M. on Wednesday in the Gold Room of the Hotel Jefferson. Progress of the Gas Industry Action Program will be discussed at this wind-up luncheon. A. G. A. President Frank C. Smith will preside.

Robert W. Otto, president, Laclede Gas Company of St. Louis and chairman of the General Convention Committee, has announced a number of other highlights on the program. Experts in their respective fields will review accident and health insurance, public relations, promotion, natural gas pipeline expansion, government controls and a variety of currently provocative industry subjects. Nationally known speakers will address the three morning general sessions in centrally located Kiel Auditorium.

State controls will be examined in a general session talk. " 'States' Rights'—Its Privileges and Responsibilities", by Eugene S. Loughlin, president of the National Association of Railroad and Utilities Commissioners and chairman of the Connecticut Public Utilities Commission. Although greater emphasis is urged on restoration of a state's right to regulate its own utilities, Mr. Loughlin cautions that states must contain adequate regulatory machinery so organized and operated that the proper discharge of a state's responsibilities will be assured.

Progress of the Gas Industry Development Program will be reviewed by gas and gas appliance industry leaders. Latest word on the gas fuel front will be presented by Frank C. Smith, president of both A. G. A. and Houston Natural Gas Corp., Houston, Texas. A complementary up-to-date report on what gas appliance manufacturers are doing will be rendered by James F. Donnelly, president, Gas Appliance Manufacturers Association and vice-president in charge of sales, Servel, Inc., Evansville, Indiana.

Further word on objectives of the GAMA public relations program will be given by Gerry Swinehart, president, Carl Byoir & Associates, Inc., public relations counsel for GAMA. In a talk entitled, "The Sleeping Giant Awakes", he will note that the threatened "blitz" by gas appliance competitors has failed to materialize. Instead, the prestige of gas appliance manufacturers has "sky-

rocketed" as far as "the public, the press and the business world are concerned".

Advance reports from sectional committees of A. G. A. indicate programs of keen interest to all members of the industry. Scheduled events include meetings, round-table discussions, forums, panels, luncheons and recreational activities. Another dimension is added by a "Parade of Kitchens" featuring colorful kitchens and kitchen-laundries displayed at the Laclede Gas Company.

Two elections will be held, one for officers at the general session on Monday morning and the other for directors at the executive session at noon the same day. Chairman of the General Nominating Committee is Frederick A. Lydecker, vice-president, Public Service Electric & Gas Co., Newark, N. J.

Spacious Kiel Auditorium, located in the heart of St. Louis, will be headquarters for American Gas Association's 1953 annual convention October 26-28

At the "Coats Off for Action" luncheon, achievements of all branches of the industry will be keynoted by three speakers from the A. G. A. Board of Directors. Speaking for the gas utilities will be Dean H. Mitchell, president, Northern Indiana Public Service Co., Hammond, Indiana. PAR and Public Relations will be discussed by James F. Oates, Jr., chairman and chief executive officer, The Peoples Gas Light and Coke Co., Chicago, and chairman of the Committee on Promotion, Advertising and Research. Representing the gas appliance manufacturers will be Lyle C. Harvey, president and general manager, Affiliated Gas Equipment Inc., Cleveland, Ohio. All purchasers of luncheon tickets will receive badges reading, "My Coat's Off For Action!" At the start of the luncheon all attendants will be invited to remove their coats.

Awards for outstanding accomplishments by gas industry members during the past year will be distributed by President Smith during Tuesday's general session. These honors include the A. G. A. Distinguished Service Award for the most outstanding contribution to advance the industry; A. G. A. Meritorious Service Award for heroic action in saving life or property in handling or distributing industry products; the Beal Medal for the best technical paper presented during the year; A. G. A. Distribution Achievement Award for the most outstanding contribution to gas distribution, and A. G. A. Home Service Achievement Awards, sponsored by *McCall's* magazine, for exceptional achievements in home service.

Two special luncheons will be held at the Hotel Statler Monday afternoon. The Corporate Secretaries Committee will meet in Parlor A to review results of a questionnaire about secretaries' duties, and the Insurance Committee will convene in the St. Louis Room for a general discussion on current insurance problems.

A Major Medical Insurance Symposium, sponsored by the Insurance and Personnel Committees, will discuss and appraise means by which utilities can provide group basis employee coverage for unusual high cost medical expenses. Participants will include representatives of insurance companies, brokers and underwriters, as well as companies which have such plans in effect. Another regular feature, the annual ladies' party, will be held at 2 P.M. Monday on the Starlight Roof of the Chase Hotel.

All business of the Residential Gas Section will be taken up Monday afternoon in Assembly Hall 2, Kiel Auditorium. Opening event will be a summary of the Section's 1953 activities by its chairman, R. J. Vandagriff, sales manager, Laclede Gas Company. Talks will include "Razors, Radios and Ranges", by B. B. Turner, sales manager, Range Division of The Maytag Co., Newton, Iowa, and "What's the Score for '54?" by H. Vinton Potter, A. G. A. coordinator of advertising and promotion. Mr. Potter will preview next year's sales and promotion campaigns prepared by the Association staff and committees.

"On Target" will be the topic of James F. Donnelly, GAMA president and Servel, Inc., vice-president. He also will give awards to winning gas utilities and sales managers in the A. G. A.-Servel gas refrigeration (automatic icemaker) merchandising contest ended August 31. An outstanding sales and promotion figure from outside the industry also will address the group.

Sound and sight will be added dimensions as Dione Lucas, television personality and cooking specialist, appears in "Operation Blue Flame", a film sponsored by The Caloric Stove Corporation of Philadelphia. The movie will be introduced by W. B. Hewson, vice-president, The Brooklyn Union Gas Co., Brooklyn, New York. Election of officers of the Residential Gas Section will follow a report of the nominating committee headed by W. J. Schmidt, assistant vice-president and general sales manager, Long Island Lighting Co., Mineola, New York.

Accounting Section sessions will be held Monday and Tuesday afternoons in Assembly Hall 1, Kiel Auditorium. The first day's meeting will be presided over by J. Gordon Ross, manager of service and customer relations, Rochester Gas and Electric Corp., Rochester, N. Y., and coordinator of Accounting Section Customer Activities Group. After presenta-

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Steel pipe fracture project designed to help increase efficiency and safety of gas operations

Industry spurs pipeline tests

a PAR activity

Attention of the natural gas and steel industries is focused on Athens, Ohio, site of a novel series of field tests on pipeline steel during the next few months. Information gained from the study will help pipe manufacturers and pipeline operators to improve efficiency and safety.

The testing program is a project of American Standards Association and is sponsored by American Gas Association's Promotion, Advertising and Research Program Committee. The tests and laboratory work are expected to cost participating industries more than $100,000.

Gas and steel men from various parts of the country are assisting in preparations for the field tests. The actual work will be conducted on property owned by Texas Eastern Transmission Corporation six miles south of Athens. As the MONTHLY went to press, the first test on pipeline steel was scheduled to be held in early September.

In charge of the project is an industry committee headed by C. F. de Mey, vice-president and chief engineer, Columbia Gas System Service Corp., a part of the Columbia Gas System. Staff members of Battelle Memorial Institute, Columbus, Ohio, will conduct the field and laboratories work.

Research portion of the project will involve subjecting pipe of various diameters to pressures normally used in transmitting natural gas over long distances. During the tests, this pipe will be damaged purposely to cause it to fracture under the pressures used.

Since the type of crack in pipe is indicated by the speed at which the crack develops, intricate measuring devices will clock the speed of the break as it travels along the pipe.

An experimental pipeline about 100 yards long has been constructed in three sections and will be laid in the ground. Only the center section—about 30 feet long—will be fractured during the experiments.

World War II brought an enormous increase in the number of large structures made of high strength steels. Increased application naturally produced a greater numerical incidence of steel structural failures. Steel under stress in ships, oil storage tanks, bridges, and pipelines on occasion has failed, Mr. de Mey said, and engineers and metallurgists are looking for the causes and cures.

The current experiments stem from the desire of engineers and metallurgists to expand their knowledge on the subject and develop more detailed information on which to base engineering calculations.

Mr. de Mey's industry committee hopes that most of the research will be done on a laboratory scale at much less expense than in the field. The field work will be used as a check against the laboratory work. If there is a true relationship between the two, tests then can be made in the laboratory in the future.

Present plans call for eight field tests on 20-and-30-inch pipe at various temperatures. The tests will be run a few weeks apart.

Participating engineers will create their own refrigeration system when a

(Continued on page 27)

C. F. de Mey (left), vice-president and chief engineer, Columbia Gas System Service Corp., and chairman of the gas industry committee in charge of the pipeline field tests. With him, looking at a map of the test site near Athens, Ohio, are two other Columbia Service Corporation men, John E. Overbeck (center), assistant vice-president, and Roger A. Zimpfer, welding engineer

Public relations

. . . No longer the poor relation

By REMICK McDOWELL

Vice-President and Secretary
The Peoples Gas Light and Coke Company, Chicago

Not too many years ago it was thought that anyone who sought to learn about the activities or policies of a corporation was committing an act of impudence. Now corporations expend great energies and sizeable amounts of money in trying to get information to the public as to their activities and policies. It is recognized that the continued existence of private corporations is dependent upon public good will and understanding. As far as gas utilities are concerned, this concept is anchored on certain basic premises:

1. Gas is distributed and sold to the public by utilities whose business is affected with the public interest and is, therefore, subject to regulation. The business deals with three general groups, although certain individuals may be in two or three of these groups: the consumers—virtually the whole of the public in the territory served; employees; and owners or stockholders.

2. The service which the gas utility business has to sell fulfills an important part of the daily human needs of millions of individuals. In certain communities it is indispensable to the health, comfort, welfare and economic prosperity of the people of such areas.

3. Gas is in great demand. In many places it is in short supply. A necessary service cannot be denied or limited indefinitely. The public is impatient with the situation, and some means or some way will be found to provide this service. If a public utility is to continue to exist it must solve such a problem or some substitute for its product or service will be found.

4. Gas is in competition with other fuels and competition is an integral part of the free enterprise system. Thus, a competitive product must be promoted to be sold. Moreover, appliances which use this product must also be promoted. Silence here is *not* golden.

5. Gas is the preferred fuel. Our service is modern. It is not something of the past; but something of the present and of the future. However, it is taken for granted by millions of people, as is the very air we breathe. It has provided such complete convenience and service that the public is inclined to take the matter for granted and not realize that in back of this outstanding operation lie vast plants, untold expenditures of human energy and unceasing dedication to reliability and safety of service. It is amazing how reliability and safety of service are accepted in due course by the public. Of course, these factors are fundamental in the gas business, but there is nothing sinful about reminding the public of these virtues.

6. Gas service is best handled, and such service most complete, when kept in the hands of private individuals. Our industry is and must remain an accepted and strong bulwark of the capitalistic system. However, this means that honest, efficient and adequate service must be maintained and recognized as such by the public.

Contemplating these premises makes it abundantly clear that it is not enough in this complex age when many voices are clamoring to be heard, some of which are unfriendly, for us merely to do our job well. It is highly essential that we raise our own voice and make sure that the public understands as fully as possible that the job *is* being done well.

> • **Public relations is woven into the life thread of the gas utility industry. It is evidence of a right way of life.**

The growth, the future, and the survival of individual gas utilities and the industry as a whole, are dependent upon the informative power of sound public relations. It is the vehicle for carrying to the public our message as to the present and future of the gas industry. It speaks for an adequate servant of the public—one that can be accepted as such by the public.

It is an all-important fact that public relations cannot substitute for good basic performance in serving the public. If service is poor, no amount of messages to the public will change that fact. The successful program in public relations is not one that is built on covering up or putting something over.

Good public relations cannot live with bad employee relations. An employee of the gas company, to his friends, his family and his neighbors, *is* the gas company. He represents that company in his ideals, his statements, and his actions. He is the company's most powerful spokesman.

Good public relations can only come from continuing public confidence in an

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Abridged version of an address before the annual convention of the Natural Gas and Petroleum Association of Canada, London, Ontario, May 29, 1953.

institution. This means the truth must be told and facts made available to the public, regardless of circumstances. In the reaching of decisions and conclusions, the best interest of the public must always be borne in mind.

Good public relations cannot be built on an attitude which is predatory, antisocial or selfish. The company exists as part of the community and should prosper as the community does. We, too, are citizens of the community. We must be willing to give to the community as well as receive from it.

Sound public relations is an evidence of a right way of life. No amount of press-agentry can overcome a lack of acceptance of this as basic in the way we operate and live within a community.

The Peoples Gas system is made up of the parent company—The Peoples Gas Light and Coke Company—and five subsidiaries. Three of these are pipeline companies, two of which originate in the gas-producing areas of Texas (one on the Gulf Coast; the other in the Panhandle). The third operates the pipeline connecting these previously mentioned companies with gas utility distribution companies in the Chicago area.

The area served by the system has a population in excess of 6,500,000, located in seven states.

In attempting to communicate with the various publics we have centralized the necessary techniques in the public relations, publicity and advertising department. Actually public relations is the all-embracing term for what is our over-all communication program, and publicity and advertising are basic tools used to implement it.

Located in this department are the people with the background, experience and technical training who are best fitted to tell our story in the most effective manner. It is their task to select and use the proper tools at the right time.

At this point let me introduce a little human touch. Theirs is the perpetual "hot spot." Their errors, even though rare, will be remembered for many a year. Their successes will be accepted as an integral part of the operation of the company. In the minds of some, they toil not, neither do they spin.

So often they must think on the spur of the moment and give direct answers to questions. No slide rules or tables of logarithms are available for them to check their conclusions. No double-entry bookkeeping serves as a control. What they do and say largely is based on past experience and judgment.

What makes the task doubly difficult, and sometimes very irritating, is that each and every person in an enterprise is an expert in the field of public relations: The accountant, the engineer, the lawyer, the office manager, and the elevator operator each has an idea as to how a given problem can best be handled. Based on our experience, they rarely agree.

If a public relations staff is to function adequately, it must learn to take these internal road-blocks as much in stride as possible—and hope that recourse to bicarbonate of soda will not become habitual. It must sustain hope that by patience and perseverance it can wear down some of these obstructions over the years.

At the same time, particularly in the field of press relations, it must move swiftly to meet demands of editors and reporters who measure time in minutes, not in hours. Thus the press relations section of a public relations staff is not infrequently "in the middle" when some segment of management, for sincere but ill-advised reasons, tries to resist release of legitimate news while reporters are clamoring for it. It seems a little like being in between the immovable object and the irresistible force. Perhaps a more philosophical way of describing the situation is to say that a public relations staff must act as a liaison between management on the one hand and the working press on the other, and must interpret each to the other.

- **We cannot sit back and allow other fuels or products to monopolize the stage. We must tell our story—clearly, sufficiently, factually and with conviction.**

As to the basic tools used by the department for either mass or selective communications, first, we have our advertising section, whose task it is to handle, in cooperation with our advertising agency, all phases of the preparation, design and placing of presentations in accepted media for which a payment is made. In using these media we have a definite message that we wish to get across. We want it to be specific and precise. We, therefore, pay for advertising space. The story which is transmitted to the public is exactly ours and is not subject to an intermediary digestive process and editorial interpretation.

Second, we have a press relations section, which operates on a 24-hour-a-day availability schedule. It has the duty of supplying information about the company to the news or editorial personnel of various media, including newspapers, TV, and radio stations. They, in turn, publish or disseminate such information to the degree that they, in their own judgment, feel it is news and therefore of public interest. Every effort is made to limit releases to items having reasonable news interest.

Paralleling this program of communication to the general public, is one which attempts to convey to the employees the problems and policies of the company, so that they are informed and can, in turn, tell their neighbors and friends of the efforts that are being made by the company to give adequate service. This program is conducted in cooperation with the industrial relations division of the company.

The major medium for communicating with employees is a monthly magazine which is sent to the employees' homes to be read by them and the members of their families. As a further step in keeping employees abreast of the general problems and policies of the company, copies of press releases are distributed to employees as rapidly as possible, so that they are kept currently advised.

Communications with stockholders and special investors' groups are handled by the secretary of the company. Assistance is given by the technical staff in lay-out of annual reports and quarterly letters and special presentations for investment analyst groups throughout the country. We have found in this situation that it is not only what you say that is important, but also how you say it.

The special events device has proved to be a very successful and useful tool in getting messages across to all of the different groups. Through proper handling of a special event, we have found it possible to reach not only specific groups but also the general public through usual metropolitan media of communication, by newspaper and radio reporting on these events.

These special events have occasioned the preparation of special brochures. These have been illustrated in a manner we believe has stimulated reader attention, and maintained continuing interest in the company and its diverse activities.

Generally, these special events have been of the type which lead up to some

significant forward step in the development of the company or in celebration of an accomplishment.

In the dissemination of information regarding the company, its product and its service, there are certain basic principles to which we give consideration:

1. The story should be of real interest to the public; not something that is just of interest to us within the confines of our company or merely tickles our vanity. It must be an accomplishment and not a rationalization.

2. If we find it necessary to account for inadequacies in certain situations, we are frank and tell the facts, so that the newspapers and the public understand why we have not made the grade, or cannot accomplish something in a given time.

3. We attempt to prepare the presentation in a manner which has a certain amount of human interest, something that will appeal to and attract the attention of the general public. Further, the information is assembled to suit the requirements of the various media of communication.

4. We act in good faith and in fairness and honesty. If we err in this direction at even one time, we will be always suspected from then on. Second chances in this direction do not receive the friendly nod.

The problem of an inadequate supply of natural gas is not of the making of the gas utilities. It reflects the shortage of materials, subsequent to the war period, and the change in the price of competitive fuels which has taken place during that period.

Other fuels have been able to react to the increase in the cost of living and the inflationary period. Gas, which is subject to regulation, has stayed in almost a static position.

We have accepted as paramount in meeting this problem that we should keep the public fully advised of our program.

As each project to improve our supply situation has been started, we have invited newspaper editors to a conference and have spent time with them in developing the whole situation. This has included the objectives, problems, advantages to the public, and cost.

This initial announcement of a significant new project for the general public good has been handled by the chairman of the company. He has made himself readily available for questioning by the members of the press. In addition, in order to make the task of the members of the press simpler, we have followed the practice of having a fact sheet available for them to take back to their desks. This procedure has resulted in good press coverage of the steps that we have taken to solve the supply problem, and we have been able to maintain an attitude of understanding on the part of the public.

We are developing a vast underground storage project at Herscher, Ill., which has offered a wonderful medium for getting the public's attention. The storage field's tremendous capacity, as stated in billions of cubic feet, has real appeal. Everybody loves the gadget approach of *Popular Mechanics* magazine. This underground storage project has the same kind of gimmick appeal.

People in our part of the country are not accustomed to the underground storage of gas, and when we first talked of storing some 90 billion cubic feet near a small town in northern Illinois, certain fears were aroused. In order to counteract this uneasiness, we joined with the Institute of Gas Technology in inviting many of the science teachers of the high schools in the Chicago area, and representatives of the geology, physics, and science departments of major universities and colleges in the northern part of Illinois, southern Wisconsin and Northern Indiana, to attend a dinner in Chicago. About 250 guests attended this function. In addition, members of the press were present. Max Ball, an internationally known gas and petroleum engineer, and Carl Bays, one of the leading geologists in the state of Illinois, discussed the project and answered questions. These two men had done much of the basic engineering and geological exploration in connection with determining the advisability of locating an underground storage field at Herscher. This provided a favorable medium for getting a message across to people generally regarded as experts in their own communities, as to the economic value of the project, its safety, its necessity in the expansion of service for the public, and its possible effect in conserving a valuable natural resource.

We have since developed a booklet on the subject of underground storage, and a brochure which combines the story of the Texas Illinois pipeline with that of the underground storage project. They tell in graphic form the story of natural gas from the Gulf Coast to the Chicago

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Mrs. America to cook with gas in '54

Lined up along a row of gas ranges, [illegible] winners vie in cooking competition [illegible] finals of last year's Mrs. America [illegible]

This comfortable house will be designated the "Mrs. America Home". It is typical of the lovely villas in Ellinor Village, Florida, that will be occupied by state winners in the Mrs. America contest in 1954

Aerial view of Ellinor Village in Florida showing the beach and some of the 650 homes in this world's largest family resort. Curving through center of picture is the road that will be renamed "Mrs. America Drive"

a PAR activity

Mrs. America next year will be one of the 30 million women who cook with gas and shop in the nation's supermarkets. American Gas Association and *Better Living* magazine will conduct next year's contest which will establish the new Mrs. America as a national symbol of homemaking.

The winner in 1954 won't necessarily have to rival Marilyn Monroe, Jane Russell, or other glamorous screen or stage stars. Instead, she will be rated primarily on her ability to cook, shop, run her household in the modern way, and keep her husband and children happy. Any housewife will be eligible to compete.

Gas company members of American Gas Association throughout the country, in cooperation with the supermarkets, will stage local elimination contests early in 1954. *Better Living* will be the sole source of entry forms, and only the 9,000 supermarkets that distribute it will be eligible to participate in the promotion.

The gas industry will also tie-in with the current Mrs. America contest, finals of which are to be held in Asbury Park, N. J., on September 13. Winner of the 1953 competition will appear at the A. G. A. Annual Convention in St. Louis, Mo., October 26-28. In addition, she will be available for gas industry and supermarket promotion in connection with next year's contest.

Consumer side of the 1954 contest will kick off with the February issue of *Better Living*, on sale January 14, in which the first entry form will be published. A second entry form will appear in the March issue on February 15. To build consumer excitement among 2,500,000 women readers, teaser advertisements will be published in the magazine's December issue.

More than $15,000 in prizes will be presented to the national Mrs. America winner in 1954. Among the prizes will be a New Freedom Gas Kitchen and Laundry, completely installed in the winner's home. In addition, each state winner will receive an all-expense paid vacation trip to Florida for herself and immediate family. Extensive national and local newspaper, television and radio promotion will make the contest an outstanding event.

Following the selection of statewide winners early in the year, Mrs. America contest finals will be held April 21-25, 1954 at Ellinor Village, Ormond Beach, Florida.

Participating gas companies that conduct local elimination contests will cooperate in running the state final. State winners, accompanied by their husbands and children, will make all-expense paid trips to Ellinor Village where they will compete in the grand finals.

Ellinor Village in Florida is the world's largest family resort, comprising 650 homes. One community street will be renamed "Mrs. America Drive" and another, "Better Living Boulevard". The 54 homes on Mrs. America Drive will be used to house the state winners, plus one each from Canada, the District of Columbia and Hawaii.

All homes on Mrs. America Drive will be equipped with the latest model gas appliances. A special deluxe home, in which the grand final Mrs. America winner will reside for a week or more after her selection, will be furnished with gas appliances and an all-gas air conditioning unit.

The winner of the 1953 contest will reside at the Mrs. America Home at Ellinor Village the first two weeks of October this Fall.

As an activity of its PAR (Promotion, Advertising and Research) Program, American Gas Association will furnish all participating gas companies with a complete "How To Do It" portfolio, outlining various steps in the 1954 contest and ideas for local promotion. Included will be advertising mats, publicity suggestions, display materials, television, radio and public event ideas. Special promotional activities will be described, as well as step-by-step details on the running of local and state con-

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Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons

● **Information for job applications**—Are you losing good employment prospects because they resent having to fill out long application blanks?

Include on the first page of the blank, information about your company of interest to the applicant. Not only will this show him you have gone half-way to meet him—but at the same time you have done a "selling" job about your company.

Here are a few suggestions to place on the application blank: number of years in business, number of employees, number of long-service employees, company progress and plans for future growth, pension or profit-sharing plans, vacation policy, holidays, recreation activities, and overtime provisions.

You want the prospective employee to have the information about the company before he is confronted with the questions in the application blank. This information can be attached to the application blank by perforations and removed by the applicant when he turns in the blank properly completed

● **NLRB rulings**—False affidavit is not compliance—The conviction of a union official for falsifying a non-Communist affidavit caused the NLRB to hold that a union-shop contract did not bar a new election. A union-shop agreement is invalid unless the union has a letter of compliance. Since this union's compliance letter was based on a false affidavit, the Board ruled that the contract was unlawful. (Kind & Knox Gelatine Co.)

Completing union's threats—Each of the unions on the ballot in an NLRB election threatened to have the workers fired if they did not vote for the respective unions. When one of the unions won the election, the NLRB ordered it set aside because this conduct prevented the voters from expressing their free choice. (Caroline Poultry Farms, Inc.)

Booze, boasting, and foreign languages—The purchase of "alcoholic drinks" for the employees and false promises made by a winning union during an election campaign, were not illegal because they contained no element of coercion, the NLRB held recently. Also, when a Board agent spoke in a foreign language to some of the workers, he did so only to see if they understood the election process. This conversation was not, as the defeated union contended, designed to interfere with the employees' free choice. (Albion Malleable Iron Co.)

Employer may attend meeting of union and workers—The demand by a company that its representative be present at employee meetings set up on company time and property so a union spokesman could address employees would and does constitute a "prejudiced atmosphere", the National Labor Relations Board rules.

The Board's decision resolves a protest filed by Local 1179 of AFL's Retail Clerks against an address to employees of the F. W. Woolworth Company's store at Walnut Creek, California, by management prior to a representation election.

Attempting to invoke the Bonwit Teller doctrine, the union charged that an offer by the company to set up three meetings of employees on company time and premises came too late to give the AFL union equal opportunity to tell its side of the story. The NLRB regional director sustained the union's request that the election, which lost, be set aside.

Overruling the regional director, the Board sustains the election results, deciding (1) that if the union representative had put in the bid quickly for time to address employees all three meetings offered by the company could have been held, and that (2) insistence by the company that its representative be at the proffered meetings would not set up a "prejudiced atmosphere".

The Board finds that:

"There is no evidence that Herring, the company representative, intended to participate in the meetings except by his presence. As the purpose of the meetings was merely to permit Baker, the union representative, to address the employees, the situation is clearly distinguishable from those cases in which the Board has found that an employer's presence at a union meeting constitutes unlawful interference with the employees' rights." (Case No. 20-RC-1932. June 1, 1953).

● **Court Decisions**—*Barring employer's family from NLRB election*—A union's certification has just been held invalid by the 6th CA because the employer's nephew wasn't permitted to vote in an NLRB election in which his vote could have changed the results. The union won seven to six. The Court ruled that the Board could only exclude the employer's spouse and children because they were the only family members barred in the NLRB's definition of "employee." (NLRB v. Sexton Welding Co., 53 ALC 627).

Corning Glass did not help AFL—In the midst of a "secret" CIO union organizing campaign, the AFL union came into the Corning Glass Works at Central Falls, R. I., freely distributed literature, and shortly after presented management with a claim of majority representation. Following a meeting at which a union-management committee compared AFL's sign-up cards against the payroll, Corning and the Flint Glass Workers signed a contract. CIO's Glass Workers complained to the NLRB, charging that the AFL union had been aided by Corning and that certain supervisors had told employees they'd prefer to see the AFL union come in.

NLRB reversed the findings of a trial examiner to conclude that Corning violated Sections 8(a)(1) and (2) by aiding the AFL union's organizational drive and signing a contract with it, and by permitting supervisors to make adverse remarks about the CIO union. The Board contended that Corning failed to maintain an attitude of "strict neutrality" between the two competing unions and thereby interfered with employees' freedom in selecting a bargaining representative of their own choosing.

The First Court of Appeals dismissed the charges because it (1) sees no evidence that the company tried to dominate AFL's Flint Glass Workers, and (2) holds that alleged expressions against CIO's Glass Workers by supervisors were protected by the First Amendment and Section 8(c) of the Taft Act.

The court disposes of the domination charge first, ruling against the Board finding that Corning's quick recognition of the AFL union is a violation of 8(a)(2). While conceding that "over-hasty recognition of one union at a time when another is attempting to gain a foothold might under some circumstances amount to a contribution of support other than financial to the first union", the court determines that Corning's clean record makes this consideration inapplicable in this instance.

In reply to the Board's charge that Corning deliberately accorded the AFL union organizing advantages over its CIO rival, the court finds that the only reason the CIO union did not get the same opportunities is because it did not ask for them. According to Judge Woodbury, the CIO union apparently conducted its campaign secretly.

Regarding the 8(a)(1) charge of "verbal pressure," the court again experiences difficulty in following NLRB's reasoning. Judge Woodbury says he cannot find any evidence that the supervisors' remarks against CIO contained any "hint or veiled suggestion of impending reprisal" which might put them in violation of 8(c).

On the record, the court finds that the supervisors' expressions regarding the CIO union were no more than casual views and opinions which the Taft Act's "free speech" clause protects. (NLRB v. Corning Glass Works, et al. USCA 1, No. 4711. May 21, 1953.)

● **Improvements on the Job**—*Simplified typing*—Two forms may be typed at once with the new "dual feed" arrangement for moving side-punched continuous forms through mul

(Continued on page 52)

A summary of Pacific Coast findings on odorization problems during the past 15 years

Experiences with odorization

By GUY CORFIELD and J. S. POWELL

Research Engineer and Assistant Research Engineer, respectively
Southern California Gas Co.
Los Angeles, California

Years ago when the Los Angeles area was entirely converted to natural gas, finding a satisfactory odorant was a major problem. Authors Corfield (left) and Powell believe that their company's subsequent field experience will be helpful to other gas utilities

Los Angeles and surrounding area was entirely converted to natural gas in 1927. Prior to that time, it had been served partially by natural gas and partially by a mixture of natural gas and manufactured gas derived from oil. The odorous manufactured gas deposits were rather rapidly evaporated or dried out, and peakload high Btu oil gas was made only for short winter periods.

It soon became evident that it would be desirable to impart an odor to the natural gas so that accidental leakage could be detected. Existing literature on "stenches" did not indicate the availability of a satisfactory odorant. Therefore, Standard Oil Company of California was approached to see if they could develop a petroleum concentrate that would in some measure reproduce the odor of oil refinery residues. This was done successfully and the resulting Calodorant was the forerunner of the similarly named odorant currently supplied by the Oronite Chemical Company.

After a trial period of small-area field testing, odorization was commenced on a regular basis in July 1929 and has been continued since that date.[1] The following observations and experiences have developed through this period.

The best criteria for adequacy of odorization, with respect to perception of gas odor by the general public, appear to be those developed through field experience.

This field experience is derived from such information as the frequency of gas fires and explosions which can be attributed to leaking gas not giving a warning of its presence because of inadequate odor. Experience is also drawn from data on the frequency of gas leakage reports from customers which on investigation indicate insignificant leaks from piping connections or gas discharged during the delayed ignition of appliances (this latter condition indicating over-odorization of the gas).

From the accumulation and analysis of such information over a period of years, it has been established that the condition of not being under-odorized or over-odorized can be approximated by the number of customer gas leak reports per 1,000 meters per month. At a rate of about six, a good balance is obtained.

Page 17 shows a plot of leak orders for gas distributed which is considered to be adequately odorized and for gas that is over-odorized. The gas distributed in the San Joaquin Valley Division and the Eastern Division up until November 1947 was odorized with two gallons of Calodorant per MMcf, which is considered adequate.

The gas distributed in the Eastern Division after November 1947 is Midcontinent gas containing too much natural mercaptan sulfur as indicated by a sharp increase in leak order rate. This leak order rate was reduced considerably when in June 1948 air was injected into the gas resulting in the oxidation of the mercaptans to disulfides. By March 1950, the leak order rate became normal at about six per thousand meters per month with a mercaptan concentration at about 0.03

[1] Hough, F. A., Corfield, Guy, Western Gas, *VI*, 23, (Feb., 1930).

grain S/100 Scf and other less odorous organic sulfur at about 0.3 grain/100 Scf.[2]

Such field experience, however, is acquired only over an extended period. It often is necessary to attempt more rapid means of evaluation when, for instance, a new odorant is to be investigated or used, or the adequacy of odor at a specific time or location is questioned.

"Closed room" testing

The commonly used test procedure is to inject the odorized gas into a closed room until a gas concentration of one percent is obtained as indicated by a combustible gas indicator. Several observers then enter the room and are asked to give their impression of the odor intensity, rating it as faint, weak, moderate or strong. For many years Southern California Gas Company used this procedure but was never satisfied with its reliability for the following reasons:

Different individuals and the same individual at different times vary in sensitivity to odor perception. Moreover, the olfactory sense is unable to distinguish between different odor intensities except for large changes in odorant concentration. Therefore, it is believed that the same group or different groups of people cannot reproducibly rate odor intensity according to the above scale for the same odorant concentration.

b. The test conditions afford the best opportunity for odor perception, whereas it is felt that the most unfavorable conditions likely to occur in gas leakage situations should be employed. For example, the observers are immediately exposed to the full odor strength at the one percent gas concentration, after being conditioned in an atmosphere of no odor. However, in a leakage situation the individual may slowly be exposed to an ever-increasing odor intensity which has a fatiguing effect on the olfactory sense and makes the individual less conscious of an odor than where the exposure is to immediate large changes in odor intensity.

Further, it became obvious that if this closed room test procedure was to be used to fix the concentration of odorant necessary to give a readily apparent odor at a one percent gas concentration, the odorization rates customarily used for the different commercial odorants were far greater than necessary. It was found that at gas concentrations of only a few hundredths percent all observers could detect the odor. On this basis, a 50 to 100-fold decrease in odorization rate was indicated. However, experience did not justify such a decrease.

Therefore, it was felt that a closed room test was needed which would more closely simulate the conditions under which the odor of leaking gas would be the most difficult to detect. A method was developed with this objective in mind. It is not perfect because of uncontrollable variables and dependence again on the human nose which, at best, is a poor means for measuring. However, the results obtained with different commercial odorants indicate odorization rates in fair agreement with the rates generally accepted as satisfactory based on field experience.

A detailed description of this method has already been published.[3] It is carried out essentially as follows. Select a room 1000 to 1500 cubic feet in content, of normal construction with respect to outside doors and windows and other openings that will cause normal air change. It has been experimentally determined that in such a room the normal air change is such that a gas leak of less than ⅓ percent of the room contents per hour will develop a gas concentration in the room of approximately one percent.

Select six observers preferably not associated with odorant testing. Have them enter the test room and instruct them to mentally observe, without discussing their observations with the other observers, the time to the nearest minute on a large-faced clock in the room when they first become aware of an odor. During the time that the test is in progress it is desirable to have these observers occupy their time by reading, talking, playing cards, etc.

Pass the odorized gas, or odorant mixed with air, into the room in a manner and commencing at a time of which the observers are unaware, at a rate of ⅓ percent of the room's cubic content per hour. Continue the injection for a period of ten minutes. At the end of this time have the observers record the time when the presence of an odor was first noted and the nature of the odor. For the odorant to be in high enough concentration in the odorized gas, all of the observers should unquestionably have detected the presence of an odor in the room within six minutes after the odorant was injected.

Usually it will be found that if the odorant concentration is sufficient the majority of the observers will detect the odor in about three minutes. If the time goes beyond six minutes and still some observers have not detected the odor, it indicates that the rate of increase of odorant concentration in the room is so gradual that the observers are adapting themselves to the odor and will never detect it regardless of how long the odorant injection is continued.

If the odorant concentration first tested is ample or too low, make several other tests at different concentrations either above or below this concentration, as the case may be, to establish that which is just sufficient. Allow about one half hour between tests with the windows and doors open for room to become well aerated and the observers to recover from odor fatigue. The odorant concentration thus established is the concentration adequate for natural gas odorization.

Field testing

To determine if the odorant reaches all parts of the system in the same concentration and state as at the point of injection into the gas, the gas can be analyzed at various locations in the area. If the odorant consists of the stable thioether or carbon-sulfur ring type of compounds, the total sulfur in the gas can be determined and from it the odorant concentration calculated.

Fogo and Popowsky[4] have published a suitable method for chemically determining the total sulfur in natural gas, and Consolidated Engineering Corp., Pasadena, Calif., manufacture an instrument which will continually give a record of the concentration of a stable sulfur odorant in natural gas providing the instrument is calibrated for the odorant.[5]

If the odorant is of the mercaptan type it may undergo chemical change. With this type of odorant the gas should be analyzed for both total sulfur and specifically for mercaptan sulfur. Shaw[6] has published a method for determining mercaptan sulfur. From the results of these two analyses the degree of the chemical change of the odorant at any point in the system can be calculated.

Complete reliance should not be placed on the degree of odor intensity

[2] Powell, J. S., Proc. of the Pac. Coast Gas Assoc., *40*, 191 (1949).
[3] Powell, J. S., Proc. of the Pac. Coast Gas Assoc., *41*, 135 (1950).
[4] Fogo, J. K., Popowsky, M., Anal. Chem., *21*, 734 (1949).
[5] Austin, R. R., Turner, G., Percy, E., Instruments, *22*, 588 (1949).
[6] Shaw, J. A., Ind. Eng. Chem., Anal. Ed., *12*, 668 (1940).
[7] Wilby, F. V., Proc. of the Pac. Coast Gas Assoc., *42*, 104 (1951).

of the gas indicated by odorant analyses. For additional substantiation, the odor level of the gas can be determined at various locations in the system by means of an odorometer.

Use of odorometers

Odorometers used for field testing have been of two types. The first provides a mixture of odorized gas and air, at a gas concentration that can be observed and adjusted. This mixture issues into a nose piece where it can be smelled. The mixture can be either adjusted to one percent gas and its odor adequacy judged, or the gas concentration can be slowly increased until a perceptible odor is observed and this concentration noted.

Such tests are, of course, subject to the uncertainties of nasal perception. They are seldom reproducible at different times or by different people and can be considered only as approximations.

The second type[7] of odorometer is basically similar, but is used in conjunction with a reference sample of odorized gas of known odorant content in a portable pressure cylinder. Each time a test is made the threshold perceptible concentration of the gas tested is compared to that of the standard sample. This procedure gives more dependable results than those obtained from the first type of odorometer, and better reproducibility between operators, if the reference gas is odorized with the same odorant as the gas under test (so that the individual response will be the same to both odors). However, preparation and transport of the reference gas adds to the time and complexity of the test. Moreover, the constancy of the reference gas odor is problematical. This is particularly true if the odorant is of the mercaptan type which is not very stable in a container and should be prepared with oxygen free gas and confined in stainless steel.

Colorimetric test

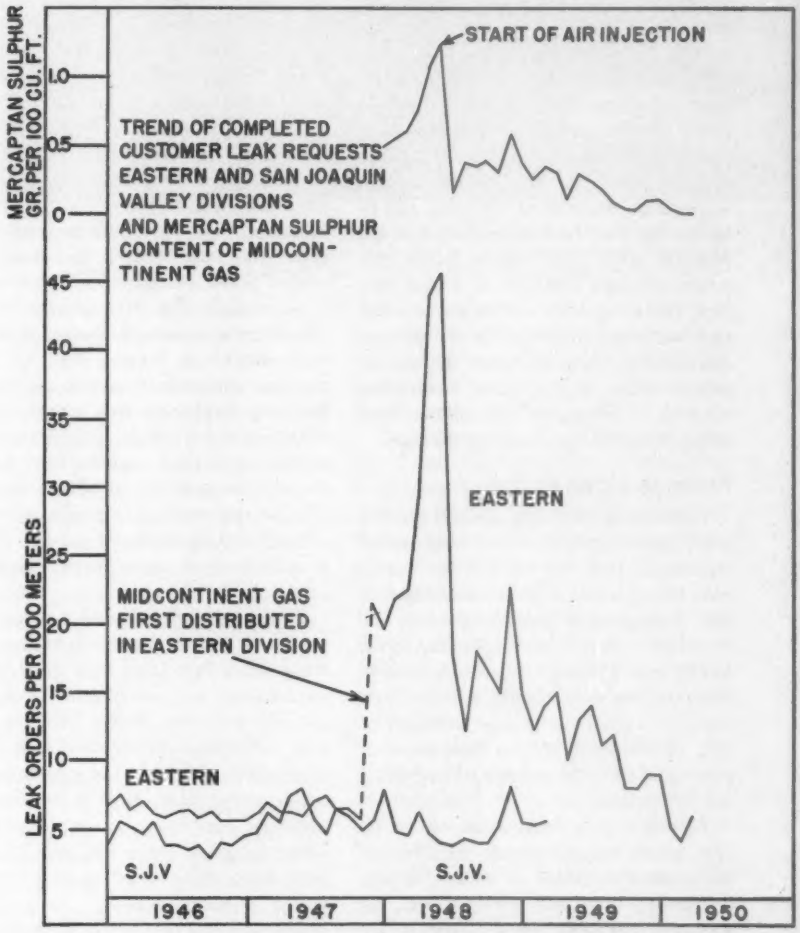
The copper oleate method for determining the concentration of a mercaptan type odorant has been investigated to some extent. This method consists of passing a fixed volume of the sample gas through a filter paper impregnated with copper oleate. The paper is then exposed to light and a color develops. The color and density is then matched as near as possible with the color in a set of standards.

These color standards are spots of color printed on paper. It was observed that they compared poorly with the actual colors for various known concentrations of mercaptan type odorant obtained with the test paper. The use of test paper colors was considered for standards, but it was found that the colors were not stable on aging.

A color photograph was made of the test papers, but in the one attempt the color print did not match the actual colors well either with respect to color or density. Moreover, the method when used for low concentrations of low molecular weight mercaptans was not sufficiently sensitive. The color on the test paper is very faint where the mercaptan concentration is below 0.1 grain per 100 cubic feet. The mercaptan content of Midcontinent gas (principally methyl mercaptan) at present is well below this concentration although adequate in odor.

It has been observed in several instances that odorized gas when passed through a new part of a distribution system suffers a considerable or complete loss of odor. In one case, Midcontinent gas having a natural odor as the result of containing 0.02-0.04 grain of mercaptans and about 0.3 grain per 100 cu. ft. of other organic sulfur compounds was being served a customer through 120 feet of new 3-inch, 331 feet of new 2-inch, and 50 feet of new 1-inch pipe. In about four days the gas at the customer's meter contained about the same concentration of organic sulfur, not including mercaptans, as the gas entering the new piping. However, even after a period of five months the mercaptans were still being almost completely removed.

This is significant because the mer-



Note that by March 1950, the leak order rate became normal at about 6000 meters per month with a mercaptan concentration at about 0.03 grain S/100 Scf and other less odorous organic sulfur at about 0.3 grain/100 Scf. "Closed room" testing is faster method

captan is responsible for most of the odor of the gas as indicated by an odorometer. The odorometer test showed that the gas before entering the new piping required only ¼ the concentration for odor perception as the gas at the customer's meter. It is believed that the mercaptans are being oxidized to disulfides (much less odorous compounds) by the iron oxide in the new pipe. Whether commercial mercaptan odorants would suffer oxidation to this same extent in a distribution system under similar circumstances is not known.

Cyclic organic sulfur compounds appear to be very stable and not oxidized under pipeline conditions. Any loss from gas passing through the new piping in a distribution system is apparently by adsorption on the wall of the pipe, and of short duration. In a laboratory test gas odorized with cyclic organic sulfur was passed through 100 feet of 1-inch new pipe and a regulator and meter at a rate approximating the usage by the average customer. In about 26 hours the odorant concentration leaving the meter had reached 75 percent of the odorant concentration in the gas entering the pipe.

Passage through soil

It obviously would be desirable, and is sometimes suggested as a mandatory requirement, that the odorant be able to pass through soil without absorption so that underground leakage could be detected by surface odor. Experience so far has indicated that the sulfur odorants in the very low concentrations customarily used are almost completely adsorbed by soil, or converted to less odorous compounds, if the time and distance of travel are appreciable.

Attempts have been made to set up tests which would indicate the effect of the several variables of time, distance, soil composition, soil moisture, etc., but reproduction and control of these variables has not appeared to be practicable. It might, of course, be possible to so increase the odorant injection rate as to make underground leaks detectable at the ground surface. But such a level of odor would undoubtedly give rise to many odor complaints and be a source of annoyance or anxiety to the customers and expense to the customer service department.

The opinion has been expressed that: (a) the type or nature of the odor should not be objectionable or unpleasant; (b) that it should be selected so as to not have similarity to industrial or other odors commonly released in the area in which it is to be used and, (c) that it should reproduce the odor of manufactured gas when used in a system that formerly distributed manufactured gas, and (d) difficulties might develop in an area supplied by two or more pipelines carrying gas odorized with different types of odorant.

With respect to (a), the odorant used in Southern California for the past 23 years would probably be called unpleasant by the majority of people, but there have not been complaints on that score. The natural odor in the Mid-continent gas (methyl mercaptan) that has been distributed in large areas of Southern California for the past five years would undoubtedly be considered unpleasant by most people and objectionable by many. However, there have been no complaints about this odor since it has been controlled below excessive concentration.

As regards (b), the odorant is produced from oil refinery stock and smells very similar to refinery and oil field residues. Nevertheless, even though the Southern California area includes many refineries and oil fields, interspersed with residential sections, no difficulty has been encountered with this similarity of odor. The general public easily recognizes the odor of leaking odorized gas and distinguishes it from atmospheric petroleum odors.

With respect to (c), and as mentioned previously, mixed gas was distributed for many years in a large area prior to the introduction and odorization of natural gas. However, the change from the pungent olefin-aromatic hydrocarbon-naphthalene odor of the mixed gas, to the petroleum type odor, did not provoke any customer complaint or even comment. This change of odor did not interfere with the normal reporting and elimination of accidental leaks.

Commenting on (d), large sections of the central Los Angeles area have, during the past five years, been supplied with Texas gas and California gas alternately, with both daily and seasonal fluctuation. This transition from methyl mercaptan odor to organic sulfur odor has caused no customer difficulty or even comment.

Masking or absorption

Studies have been made of the means of controlling the odor of Calodorant that has been accidently spilled. The problem can be divided into two phases.

(Continued on page 53)

John McCaleb, senior distribution engineer, Columbia Gas System Service Corp., inserts fluid resistor in panel of new electronic "brain"

"Impossible" gas network problems will be solved by analyzer at Columbia Ga

Electronic brain reports for work

olumbia Gas System engineers (left to right) John McCaleb, rin Lepley and Guy Simoni, setting up a gas distribution roblem for test run of the company's new analog computer

C. F. de Mey (left), vice-president and chief engineer, Columbia Gas System Service Corp., working out a problem with Mr. McCaleb. The "brain" is expected to bring large savings for the system and better gas service for more than a million retail customers

Pipeline network problems that before weren't even attempted now can be solved in a few hours by a $62,000 electronic "brain" being installed by Columbia Gas System in Columbus, Ohio. Known as the McIlroy Pipeline-Network Analyzer, the machine is expected to save the system millions of dollars.

The "brain" will indicate pipe sizes to maintain proper gas pressures for customers. It does this by computing the rates of gas flow in the various pipelines constituting low-pressure gas distribution systems. By using electricity flowing through wires to simulate gas flowing through pipelines, the analyzer also provides a pressure survey. Engineers, making simple changes in the circuits, can experiment with various combinations of pipe sizes and locations of gas sources. Each of these problems would take months, possibly years, to work out mathematically.

Heretofore when a distribution network was to be extended to new customers or changed in any other way, finding the right combination of pipe sizes and placement to maintain the proper pressure was to a great extent a matter of estimation. Time is not available to work out mathematically the accurate results of various combinations. So, mathematics, experience and estimates have been combined to provide the answers. This might mean several miles of six-inch pipe laid where four-inch pipe would have done just as well. Such minor inaccuracies can cost thousands of dollars.

The McIlroy Pipeline-Network Analyzer was developed by Dr. Malcolm S. McIlroy,* assistant dean of Cornell University's College of Engineering, to study the effects of alternate network designs of water distribution systems. The first direct-reading pipeline-network analyzer was installed at Cornell in 1949. Since gas flowing through pipes acts very much like water it was fairly simple to adapt.

First "brain" in St. Louis

Today the gas industry has shown a greater interest in the "brain" than has the waterworks industry. Three gas network analyzers of approximately similar design have been built by Standard Electric Time Co., Springfield, Mass., under the direction of Dr. McIlroy, a consultant to the firm.

Laclede Gas Co., St. Louis, Mo., recently received the first analyzer of its type in the gas industry. Their electronic "brain" has been installed at the Central Service Station in St. Louis, has been thoroughly tested and is ready for operation. A third pipeline network analyzer is being readied for Public Service Electric and Gas Co., Newark, New Jersey.

Columbia Gas System's analyzer is designed to fill the specific need of a huge natural gas system serving more than a million retail customers in seven mid-Appalachian states. It is being set up in the engineering laboratories of Columbia Gas System Service Corp., affiliate of The Columbia Gas System, Inc., for the use of all companies in the system.

According to C. F. de Mey, vice-president and chief engineer of Columbia Gas System, the network analyzer will serve several purposes. By simulating the flow of gas it can determine the gas pressure at street intersections of a distribution system, giving a close approximation to a pressure survey, which was never available before in so complete a form. This information will show where pipe capacity must be added to give better service.

Many trials of the best location for regulators or sources (points where gas is taken into the distribution network) can be made in the time it would take the engineers to think about figuring one possible location mathematically. The computer can look ahead, too, showing necessary additions for a five-year construction plan based on estimated future gas requirements.

In case of relocation or temporary removal of a section of a distribution network, the analyzer will show the best way to reroute the gas—where the pressure will go and what precautions to take.

And the analyzer will keep engineers constantly aware of what has to be done to maintain gas pressures so that homes can be supplied adequately during periods of peak demand.

Two engineers will be the "crew" for

(Continued on page 52)

* See Dr. McIlroy's article "Gas Pipe Networks Analyzed by Direct-Reading Electric Analogue Computer," page 433, 1952 A. G. A. Proceedings. Refer also to "The Uses and Applications of the Distribution System Calculator" by B. E. Hunt, Institute of Gas Technology, p. 516, 1952 A. G. A. Proceedings.

Straws in the wind

(Continued from page 3)

followed by round-table discussion.

Reactions of executives who attended the New Orleans, New York and Pittsburgh clinics indicate that they were returning home with the expectation of critically reviewing their present sales and servicing policies in search of even more effective approaches.

In addition, nine gas companies have selected cities between 50,000 and 150,000 population to serve as veritable proving grounds of the practicality of the industry's fifteen point Action Program. A tenth company may join this list in the near future. These companies will strive to increase or improve the effectiveness of their local sales, dealer cooperation, promotion and servicing policies. They will then follow up by evaluating the results of their efforts in terms of greater consumer acceptance of gas utility service. Initially, a special market survey will be conducted in each city to determine what aspects of local company practices require the greatest or most immediate attention.

Finally, the Association's Board of Directors at its last meeting approved a recommendation to include consideration of the commercial gas market as part of the Gas Industry Development Program. A detailed plan of action with respect to this commercial market will be evolved in the near future. A PAR Plan activity.

Come up and see us

▶How receptive are you to new ideas and developments? Here's one, together with a free invitation from the firm that developed it. Cooper-Bessemer Corporation has invited all comers to contact the company and schedule visits to its Mount Vernon, Ohio plant to preview a pilot model of the revolutionary new commercial free-piston gas turbine. You may have read the article on this subject, "Generating More Power from Less Fuel," in *Business Week* earlier this year.

How many gas men will take advantage of this offer to view the newest application and stimulate the thinking of manufacturer representatives?

Educational task force

▶It is sad but true! A recent survey by Terry Hart disclosed that many laboratories in engineering and technical schools throughout the country lack the latest gas equipment. Where gas equipment is installed, it often is obsolete.

A new "task force" has been formed by the A. G. A. Industrial and Commercial Gas Section to define the scope of activities required to solve this problem. Recommendations of the group will be used by an educational committee to bring information on the industrial and commerical uses of gas to the attention of colleges, trade and technical schools, technical and trade associations.

Serving on the "task force" are members of Section's Managing Committee who are members of interested committees, supplemented by manufacturer representatives.

Potentials in electronics

▶During the next ten to 15 years, electronics are expected to provide the opportunity for tremendous savings in the utility accounting field. Much of the preliminary work has already been completed by manufacturers. It is now up to gas and electric industry accountants to tell electronics firms exactly what applications of their equipment are required.

The first Utility Electronic Accounting Developments Seminar in New York October 7-9 will attempt to fill that gap. American Gas Association and Edison Electric Institute have invited top level, policy making accounting executives to attend this seminar at the Hotel Commodore. The meeting should help pave the final road to a complete Utility Electronic Accounting System. (See feature articles on electronics in the Accounting Section of the September MONTHLY.)

Hot water procedure

▶A revised new performance test procedure for establishing the required quantity and temperature of hot water from gas water heaters is being developed by the A. G. A. Subcommittee on Approval Requirements for Gas Water Heaters. The new procedure recognizes the total heat delivered by the heater as usable hot water rather than the fixed points of the present procedure. Distribution of the procedure, for industry criticism, is expected shortly.

Servicemen take heed!

▶A useful tool for the appliance serviceman is the new fourth edition of the A. G. A. Gas Appliance Service Water Heater Manual. Recently revised by the Association's Utilization Bureau, the book is complete enough for the experienced serviceman and explanatory enough for use as a text to train service personnel. Valuable information is provided on selection and installation of gas water heaters. Another feature is specific maintenance and service instructions covering controls and water heater models of 27 manufacturers. Each control discussed is amply illustrated. Wherever possible, service instructions appear on the diagram.

Consolidated Edison Company of New York has purchased a large number of the manuals for supervisors who work with servicemen. Another large utility plans to use the manual in its serviceman's school. Prices are $2 for one to ten copies, $1.75 for ten to 99, $1.50 for 100 or more.

Facts—why? what? how?

▶The American economy has almost completed the conversion from a seller's to a buyer's market. More and more, aggressive action is required to capture any sizable portion of the consumer dollar. One result of this phenomenon has been a strong demand for stepped up sales and promotion endeavors—long-range programs based on factual information. The best guarantee that these vital facts will be available is to develop a comprehensive market research program, including a market survey of your service area.

Consumer surveys will indicate differences in present and future acceptance of gas appliances (with the accompanying implications for gas consumption) between various income levels, age of family members, occupation of principal wage earner, age and type of structure, and renter versus owner-occupied dwellings. Such data are vital to the proper orientation of advertising and promotional campaigns. They show how to influence the largest number of potential customers and avoid or minimize expenditures on unobtainable, undesirable or uninterested prospects.

Kitchen and a heart

▶ *Woman's Home Companion* will run a full-color feature on the new Heart Saver Kitchen in the October 1953 issue. This is a direct result of the tremendous popularity of the first Companion-Mutschler Heart Saver Kitchen in 1951 and of the many requests received from the disgustingly healthy as well as the disabled.

Numerous energy-saving, fatigue-abolishing innovations will appear in the new Heart Saver Kitchen, which Mutschler Brothers is putting on wheels. The Mobile Heart Saver Kitchen trailer will be available to utilities on a low-cost rental basis after its showing at the A. G. A. Convention in St. Louis next month. This kitchen, like the last one, has been prepared in cooperation with American Heart Association. It is a PAR Plan activity of A. G. A.

Pick your career

▶ There's never a dull moment as a home economist for a gas company! More than 1500 home economists have accepted the challenge and are offering their personalized services to gas company customers in the United States and Canada. More volunteers are needed.

(Continued on page 51)

Outside reading of inside meters

By L. S. THOMAS

Public Service Electric & Gas Co.
Newark, New Jersey

Remember the meter reader—the hard-working gas company employee who has to overcome the annoyances of barking dogs, locked doors and slippery stairs? Here at last is a practical plan to simplify the reading of gas meters and save valuable time for both company and employee.

Public Service Electric and Gas Company has developed trial installations that solve the problem of reading gas meters from the outside. The plan is not only practical, but simple and inexpensive.

Public Service solicited the cooperation of residential building developers to install a transparent structural glass "vue" block in an outside wall of new homes. This block is inserted in a position designated by my company so that the gas meter can be mounted behind and directly facing it. As a result, the meter dials and meter number are clearly visible to the meter reader from the outside of the building. Tests have proved that accurate readings can be taken from a distance of at least ten feet.

Obviously, there are many advantages in being able to read gas meters from the outside. Here are a few. Many more readings can be made per man-day with less physical strain. There is greater customer convenience, a reduction in bill complaints and elimination of costly "back" calls.

Many new homes are occupied these days by couples who are both employed. Consequently, there is a mounting volume of customer correspondence relating to access for meter reading in these homes. This tide of correspondence is costly and sometimes irritating to customers. Therefore, there is an important advantage, though a less obvious one, in being able to stem this tide of correspondence.

No "access" problem

In combination companies, such as Public Service, difficulty in overcoming some builders' objections to "outside" electric meters can be reduced by pointing out that the use of the block for gas meter reading will entirely eliminate the "access" problem if the electric meter is placed on the outside. This has been the actual experience in some of the trial installations.

Builders who have been approached with the idea have been enthusiastic in their cooperation. Most builders are very conscious of the customer's and company's problems in getting in to read the meters. They see that an opportunity to eliminate this problem will have wide "sales appeal" to prospective buyers. The reaction in this respect has been so good that builders are now requesting permission to install the blocks.

The "vue" glass block used is manufactured by the Pittsburgh Corning Corporation. It is eight inches square and four inches thick, with smooth crystal-clear glass faces.

These blocks can be installed in masonry or frame construction. Because of their design they present no installation problems in any type of construction. Public Service trial installations include homes where the builders have installed the blocks in basement walls, above-ground level, and in outside walls of ground floor utility rooms, both frame and masonry construction.

Although the trial installations are still in the construction stage, careful thought has been given to any possible disadvantages that may crop up in future experience. Because of the size of the block and the fact the meter is mounted four or five inches behind the block, permitting a wide angle of vision, there is no problem of fine tolerance in setting the meter.

Although rather unusual, there also appear to be no problems in mounting the meter in a reverse fashion. In this connection the question arose: "How can the serviceman inside the house see the meter dial face to make an appliance time check of gas usage?" A satisfactory solution is for the serviceman on such occasions to use a small hand mirror.

We believe that the results of our trial installations will increase the trend to outside reading of both gas and electric meters.

Early response assures successful '53 Round-Up

a PAR activity

UTILITIES and dealers all over the country are tieing-in with American Gas Association's fifth annual Old Stove Round-Up. The early response is so encouraging that the 1953 Round-Up promises to be the most successful national merchandising promotion in major appliance history. The Round-Up is a PAR (Promotion Advertising and Research) activity, sponsored by American Gas Association in cooperation with Gas Appliance Manufacturers Association.

From September through November, housewives are encouraged to trade in their old stoves for allowances toward the purchase of modern automatic gas ranges. This year it is estimated that about two million new gas ranges will be sold.

The Round-Up concurs with the height of seasonal buying; sales are given momentum, by national and local advertising and merchandising. A. G. A. is backing the Round-Up with more than $100,000 of national advertising, while manufacturers, utilities and dealers will support the promotion in newspapers, radio and TV commercials.

Six spot radio commercials, an innovation in this year's campaign, are available on a 16-inch record. Each commercial describes the new ranges, and contains a musical interlude for a local company or dealer sales pitch.

Gas companies may order three- and four-column mats for newspaper advertisements. Space is allotted for company or dealer name and amounts offered as old stove trade-in allowances. Further scope is achieved by a car card and an out-door advertising poster.

Two special sales kits are available for point-of-purchase displays. Included are a full-color wall sheet, streamers, pennants, easel cards, stick-on pieces, and jumbo price tags. Another is a western display kit carried over from last year, now available at half price.

American Gas Association's booklets, "10 Lucky Numbers to Help You Pick the Best Modern Range" and "10 Key Pieces to Modern Kitchen Planning" can be used as sales floor giveaways or direct mail pieces.

Final printed promotion piece is the 30-page pocket-size "Gas Range Sales Maker" which discusses selling points, hints on customer approach and methods to encourage undecided customers to place orders.

Prices and information about publications, promotional materials and premiums may be obtained from the Promotion Bureau, A. G. A., 420 Lexington Ave., New York 17.

A. G. A.'s four-color single and double page national advertisements are scheduled for *The Saturday Evening Post, McCall's, Parents* and *Woman's Home Companion*. The advertisements will feature the advantages of gas cooking. Illustrations will highlight New Freedom Gas Kitchens with clock-controlled ranges and the new gas icemaker refrigerator.

Concurrently, GAMA will announce the Old Stove Round-Up to dealers in 13 gas trade publications. Cooperating with the National Association of Home Builders, GAMA Round-Up promotions are tieing-in with National Home Week. Gas range dealers will be urged to cooperate with builders to furnish the kitchens of approximately one million homes to be built this year. Also, GAMA will sponsor a contest awarding prizes for best examples of active demonstrations on dealer floors, and will mail copies of "'Quickie Demos' that Sell More Automatic Gas Ranges" and "Gas Range Sales Maker" to 40,000 dealers in the United States.

Complete utility and dealer campaign details are outlined in a portfolio prepared by the A. G. A. Promotion Bureau.

Largest gas display wins acclaim at AHEA convention

a PAR activity

GLEAMING gas kitchens stole the show at the American Home Economics Association annual convention, held in Kansas City from June 23 to 26. Displayed for the benefit of more than 4,500 visiting home economists and teachers from all parts of the world, the appliances were effective, albeit silent, salesmen. A. G. A., under the PAR Program, was the largest single purchaser of space at this show and made it possible to show a substantially larger number of gas appliances and kitchens than ever before.

Gas industry home service directors helped to staff the A. G. A. exhibit, which this year was set up as the "Little Red School House." A panel of 60 slates framed photographs of school home service laboratories, in which gas equipment was prominently pictured. A side panel displayed a check list of items to be considered in the selection of a gas range for school or home use.

In addition, the Association showed a total of nine all-gas kitchens and laundries, many of which are being featured in leading national consumer magazines.

For instance, two kitchens displayed at the convention by Mutschler Bros. Co. are being spotlighted in *Family Circle* and *Today's Woman*. The *Family Circle* kitchen is noteworthy for its compact arrangement in a 10' by 14' space, as well as its Western Holly built-in range, Servel refrigerator and Bendix combination washer and dryer.

A striking purple and white color scheme drew attention to the Lyon Metal Products all-gas kitchen and laundry. The kitchen, designed by Helen Hutchinson, assistant editor, better foods and equipment department, *Better Homes and Gardens*, will be shown soon in the magazine.

Chambers Corp. and the Kitchen Maid Corp. collaborated to show three all-gas kitchens. Chambers new equipment played a leading role, assisted by a gas refrigerator and dryer. Handsome natural maple cabinets featured in one of the kitchens were planned by *House and Garden* magazine.

Activities in an all-gas model home-making department, designed by St. Charles Manufacturing Co., revolved around a Servel Ice-Maker refrigerator and Roper gas range, while Youngstown Kitchens devoted its space to two new Caloric gas ranges and two Servel refrigerators.

Thus, the convention focus was found in gas industry exhibits—in A. G. A.'s Little Red School House, in the many New Freedom Gas Kitchens, in all-gas model school laboratories.

Home economists visit A. G. A.'s Little Red Schoolhouse in which photos of 60 all-gas school cooking laboratories were displayed

One of two all-gas kitchens built by Mutschler Brothers especially for the show was featured editorially in "Family Circle" Magazine

Safety pays off in Seattle

Seven-year drive nets low accident rate and financial gain

Safety contest score boards, conspicuously placed in production and distribution departments, are integral part of utility's accident prevention program. Avery Willis, Jr., scrutinizes tallies, recorded each day so that employees can check progress upon arrival and departure

By AVERY WILLIS, JR.

Safety Director
Seattle Gas Company
Seattle, Washington

Seattle Gas Company has been carefully "sowing seeds of safety" for the past seven years. Last year, this consistent and persistent safety program paid off in handsome dividends.

For the first time, the company achieved an accident frequency record below the industry's national average. This resulted in total savings of $12,262 for the year—$6,854 for the firm and $5,408 for employees on their medical aid fund rates.

The company's accident frequency rate for 1952 was 10.25 as compared with its worst record of 46.38 in 1949. National average for the industry last year was 14.40. In addition, Seattle Gas competed in National Safety Council's 1952 Public Utility Safety Contest and walked away with third place honors in the Gas Division's Group C.

Wages paid for days lost due to accidents in 1952 totaled only $353.28, representing almost a $1,000 saving over the previous year's record. Average loss per accident in the company's production division was $6.38, as against $24.53 in 1951.

In reduced insurance rates, Seattle Gas saved $5,354 last year. Reductions in medical aid fund rates saved the company $5,408, and a like amount for employees.

Driving accidents for 1952 dropped to 29, a steady decline from 38 in 1949. Preventable accidents for the fleet were down to 16, as compared to 27 in 1950. Collisions cost the company $1,100 as against $1,600 in 1951, a saving of $500.

Our safety program begins in the personnel office with a selection procedure designed to eliminate accident-prone applicants. Only those physically, mentally and emotionally qualified to work safely are hired.

All employees are safety trained. Last year, ten new employees going into the service division each received 14 days of formal classroom instruction on safe, systematic methods. Twenty-nine supervisors completed a 12-hour supervisory training course. First aid training of 114 men brought them up to date in the Helger Nielsen back-pressure, arm-lift method of artificial respiration.

Continuous training in safety is conducted by Seattle Gas Company through the medium of safety committees. During 1952, these committees produced 176 concrete safety recommendations, 165 of which were carried out before the year's end. These recommendations were classified as follows: housekeeping—34; maintenance—46; improved working facilities—71; investigations—11; miscellaneous—14.

Seattle Gas Company's safety program offers a number of incentives to work safely. In the production and distribution departments, completion of 100 days without a lost-time accident earns for each division a pair of safety shoes for every 15 employees. Drawings are held for these.

For the fleet, awards are given for safe driving in compliance with National Safety Council recommendations. Upon completion of 100 days without a preventable accident, a drawing is held for two one-week vacations with pay.

One distribution department division went 1,059 days without a lost-time accident in 1952.

Seattle Gas is convinced that employee education is vital to the safety of customers and the public as well as to company workers. Still greater dividends in the form of budget savings are expected as our safety record continues to improve.

A.G.A. opens educational service to assist schools

a PAR activity

AMERICAN GAS ASSOCIATION has initiated an important new program designed to acquaint the 33 million American children in public and private schools with the role that gas plays in modern living.

First unit in the new school education program is a package or kit called "Natural Gas —Science Behind Your Burner" which is now being distributed. The material is designed for use by social study and general science classes required of all children between the seventh and ninth grades. It was prepared in collaboration with the National Science Teachers Association and with the professional guidance of noted educators in this field. The entire program has been planned to assist the schools rather than to "sell" an industry's product.

Five major items are included in the first package: a film strip of 42 frames, a teacher's guide, a wall chart explaining the flow of gas from the well to burner, a wall chart showing principal pipelines in the U.S., and 40 descriptive sheets for distribution to students to take home.

A total of 19,000 teacher's guides outlining the kit and its uses, are available for distribution to science teachers. Complete details can be obtained from the Educational Service Bureau, American Gas Association, 420 Lexington Ave., New York 17, N. Y.

Utilities making active use of "Operation Blue Flame"

WHEN "Operation Blue Flame" was introduced by Caloric Stove Corp. this spring, it was endorsed by many of the industry's leaders as a practical program for TV-merchandising on an industry-wide scale. In the months since then, the project's "Dione Lucas Show" has met that prediction.

Henry Kievenaar, manager of residential sales, Boston Consolidated Gas Co., one of the first companies to join the plan, says about the TV cooking show, "This is the type of vehicle for which the industry has been looking. Our response to date certainly indicates the need for such a program. For the first eight weeks of our spring campaign, we show a 15 percent sales gain for ranges over the comparable period in the successful year of 1952."

First of those to join the "Dione Lucas Network" were The Brooklyn Union Gas Co., The Philadelphia Gas Works Co. and a group of 19 gas companies in the Boston and Providence area. The Mississippi Valley Gas Co., Jackson, began sponsoring the cooking program the first week in July. Also in the South, the Peoples Water and Gas Co. of Miami, Fla., is making arrangements to telecast the show on a cooperative basis with five appliance dealers.

The "Blue Flame" project provides utilities with a complete TV package that can be sponsored in each city as a medium for local merchandising. To promote the show nationally, Caloric is offering the show on film free of charge to any company directly or indirectly selling the use of gas. As a result, each utility adopting the filmed show pays only the cost of television time plus a small servicing charge. Every company picks its own TV station and own telecast time. Commercials are either given "live" by a local announcer or on film with Mrs. Lucas presenting the local sales message.

In addition to the films for telecasting, a 14-point promotion plan is incorporated in "Operation Blue Flame" at no cost to participating utilities. One of the major elements in the package is the free use of films for group showings. The producers of the series are preparing to shoot a 30-minute, full-color reel of Mrs. Lucas in action. Caloric predicts that four million women will see the film in the next 24 months through local showings by gas companies.

Actively interested in the film facet of "Operation Blue Flame" is The Brooklyn Union Gas Co., which has been sponsoring a "live" Lucas show with Caloric for almost two and a half years.

Besides the Caloric gas range, other gas appliances are given frequent endorsements during the show. If a company is unfamiliar with television techniques, suggested commercials are provided.

To help build an audience for the program, slides and film trailers are available. Each participating gas company receives publicity releases, promotion material, and recipe columns for use in newspapers.

New A.G.A. publications announced for July-August

LISTED BELOW are publications released during July and August up to closing time of this issue of the MONTHLY. Information in parentheses indicates audiences for which each publication is aimed.

HOME SERVICE

● **Home Service—Opportunities Unlimited** (for high school girls and other groups of young people). Prepared by the 1953 Home Service Committee for career conferences and other home service contacts. Available from American Gas Association Headquarters, New York, five cents a copy.

RESEARCH

● **The Corrosion of Metals and Materials by the Products of Combustion of Gaseous Fuels—Report No. 4** (for utilities, manufacturers, installers and architects). Prepared by H. A. Pray, R. S. Peoples and Earl White, and available from A. G. A. Headquarters, New York, one dollar a copy.

● **Summary Report on Mechanism of the Water Gas Reaction** (for companies which have water gas sets). Prepared by Carl J. Lyons and John F. Foster of the Battelle Memorial Institute. Available for one dollar a copy from A. G. A. Headquarters, New York.

STATISTICAL

● **Monthly Bulletin of Utility Gas Sales, June 1953** (for entire industry). Prepared by and available from A. G. A. Bureau of Statistics, free.

● **Quarterly Report of Utility Gas Sales, Second Quarter, 1953** (for entire industry). Contains best available data on utility customers, sales and revenues. Prepared by and available from A. G. A. Bureau of Statistics, free.

● **Gas Facts** (for entire industry). Yearly handbook of operating and financial information based on information submitted by A. G. A. member companies. Obtainable from A. G. A. Bureau of Statistics, one dollar a copy.

● **Market Research Why? What? How?** (for utility executives, sales personnel and market analysts). Prepared for the Gas Industry Development Clinics. A limited number of copies are available from A. G. A. Bureau of Statistics, free.

UTILIZATION

● **Special Features of Current Gas Ranges —and Where to Get Them** (for sales people). Sponsored and prepared by the Utilization Bureau. Available from A. G. A. Headquarters, Order Department. Prices: 10 cents a copy for one to nine copies; eight cents a copy for 10 to 99 copies; five cents a copy for 100 or more.

PROMOTION AND ADVERTISING

● **Natural Gas—Science Behind Your Burner,** education kit (for schools, gas utilities). Available from A. G. A. Headquarters, New York, $1.50 a kit.

RESIDENTIAL

● **Pattern for Profit** (for dealers, gas utilities). Available at A. G. A. Headquarters, New York, price to be announced.

What step must accounting executives take to add "mechanical robots" to their payrolls?

The big question in electronics

By JOHN H. W. ROPER

Supervisor, Customer Accounts
Washington Gas Light Company,
Washington, D. C.

• A complete and satisfactory Utility Electronic Accounting System is now definitely within the realm of possibility. But what problems still remain to be overcome? John H. W. Roper, co-chairman of the A. G. A.-EEI Subcommittee on Electronic Accounting Machine Developments, tackles this question in the following article. Read also the timely description of the course in electronic digital computing systems sponsored by The Peoples Gas Light and Coke Company. Both articles have been written especially for the MONTHLY.

Although a complete and satisfactory Utility Electronic Accounting System, considering cost, physical size, and adaptability to our accounting problems, is not yet available, it is apparent that ultimately these Twentieth Century mechanical robots may be added to your payroll. The possible economic advantages of such a system are so great that it looks like we must now change our thinking from "if" electronic equipment will be used in our work, to "when" it will be used.

In April of this year your Electronic Accounting Machine Developments Committee reported that the prior year had been one of intense but quiet work on the part of the manufacturers of electronic equipment. We also have tried to convey through these periodical reports that our visits to their laboratories and the round-table discussions with their representatives have convinced us that the basic science and techniques are already known.

The current problem appears to be product research. What accounting problems are most universal? What type of equipment does the businessman want? Should the first units be large or small? The sooner these questions are answered, the sooner standard models will be turned out. The electronic accounting machine manufacturers are looking to the businessman for some of these answers.

Co-Chairman Roper finds that a "meeting of minds" is needed before a complete and satisfactory Utility Electronic Accounting System can become a reality

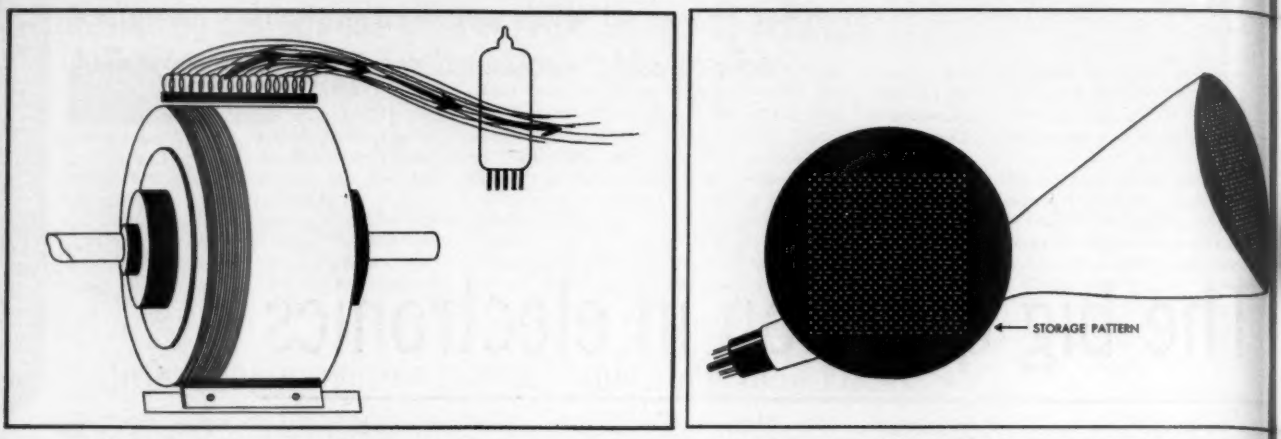
Apparently, the first electronic accounting system will not go into operation anywhere without much preliminary effort on the part of management people at the policy making level. The business machine companies believe the process of electronizing a business office must begin with a meeting of minds between management and the manufacturers' engineers and product analysts. Businessmen can influence the evolution of such equipment and induce the electronic machine manufacturers to increase the amount being spent on business machines. Should they not see fit to do this, the available funds will probably be spent elsewhere developing scientific computers, television, etc.

We know you have many questions, such as: "Are electronic computers reliable?" "Can the average employee operate them?" "How much will the equipment cost?" "Is our operation large enough for an Electronic Accounting System?" and "When will they be available?"

We wish we had or were able to quickly supply satisfactory answers to all the questions confronting you. Eventually, they will all be answered. In the meantime, despite the fact that some of the answers are not readily available, those who are in a position to know suggest that individual companies, as well as whole industries, plan well in advance for this prospective transition.

The Peoples Gas Light & Coke Co. of Chicago, with an eye to the future, is "Planning for Tomorrow's Electronics —Today". An article so titled, describing what they are doing, appears in this same issue of the MONTHLY.

The A. G. A. Accounting Section and the EEI Accounting Division likewise are not letting any grass grow under their feet. They have scheduled an Electronic Accounting Machine Developments Seminar for the Gas and Electric Industry's chief accounting executives and other invited guests on October 7-9, 1953, at Hotel Commodore, New York City. The only subject to be discussed is electronic accounting machine developments. One or more representatives from each of the



Electronic developments: Magnetic drum (left), depending on its size, can store from 5,000 to upwards of 100,000 characters each of which can be read or written in a few thousandths of a second. In electrostatic storage (right) information is recorded in the form of electrical charges on the face of a cathode ray tube. Dots and dashes represent characters. Drawings from "Light on the Future," courtesy International Business Machines Corp.

major electronic accounting machine manufacturers will be present.

The representatives, in closed session, will discuss what their companies have done or are doing electronically to help solve the businessman's problem. The industry's chief accounting executives will have ample time and opportunities to ask pertinent questions. An impartial adviser with a broad background in electronic type equipment has been retained by the committees to help these executives evaluate the facts presented and decide what direction the industry's future efforts should take.

It appears that a Utility Electronic Accounting System will not be seen until our chief accounting executives grab that "ole ball" and run with it. Previously, some of the manufacturers suggested that we assign three or more gas and electric industry men full time to help them develop a practicable utility electronic accounting system. Other manufacturers indicated that they prefer to make a survey of the requirements on an individual company basis. The latter approach, of course, requires company manpower instead of industry manpower.

From an industry as well as a company standpoint, which is the better way to attack this problem? It's quite apparent that either way is going to require money as well as manpower. Accordingly, the direction of the industry's future efforts must be effectively and economically plotted. It is hoped that this can be done through what is learned at the October Electronics Seminar.

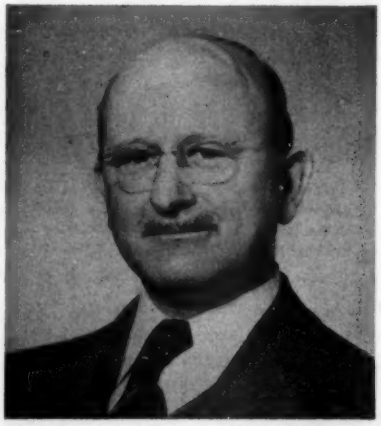
Planning today for tomorrow's electronics

A course in electronic digital computing systems is being sponsored by The Peoples Gas Light and Coke Co., Chicago, for members of its accounting and technical staffs.

Considerable publicity has been given to electronic calculators during the past four or five years. The first electronic calculator made its appearance in 1946. In 1948 the first practical business adaptation was developed. The field of computing machines is growing at a tremendously rapid rate.

As the use of electronic digital computing machines becomes even more widespread, business management faces the problems of evaluating the applicability of a particular machine to their accounting and technical problems.

The Peoples Company recognized, that some day not in the too distant future, various types of electronic information processing machines will be available for practical use in the offices. Company management believed that there must be considerable planning and developing for the prospective transition from the use of present-day office machine equipment to the more completely electronic equipment which is currently being prepared for the market.



Frank L. Griffith, vice-president and comptroller of The Peoples Gas Light and Coke Co., Chicago, and sponsor of the company's course in electronic digital computing systems

Management of the company does not believe that it is necessary for industry to develop skills and knowledge that would enable them to design and construct electronic equipment. That is the manufacturer's job. But it is the responsibility of the industry to develop skills and knowledge to bridge the gap between what the manufacturer may have built into an electronic machine and the tasks which must be performed.

To develop the knowledge and skills for the transition, it was believed that instructional courses should be developed that would train members of the company organization in the electronic functions. These courses would provide such personnel with enough of the basic elements of electronics and digital computing processes so that a familiarity with the terminology, the processes, and basic ideas involved would be gained.

Members of the company's staff

worked with development and research engineers of the Computing Center of the Armour Research Foundation of Illinois Institute of Technology. Their efforts were directed toward developing an instructional course that would give a general introduction to the electronic digital computing system.

A course for the instruction and principles of electronic digital computing machines, which consists of a series of 48 two-hour lectures, has been developed by Armour Research Foundation of Illinois Institute of Technology. A draft of the initial parts of a *Syllabus* had been prepared when the course began on April 28, 1953, and additions are being developed as the course progresses. The classes are being attended by 15 machine accounting and technical people. Classes meet twice a week with a vacation from July 4 to July 20. The last class meeting will be October 20.

The *Syllabus* introduces the history of calculating machines, the number systems, circuit elements, computer organization and computer functional components. One section will be devoted to a computer application on a utility problem. This section is being developed on a cooperative basis between Armour Research Foundation and members of the Peoples Company by applying electronic devices to existing company applications.

Section leaders survey accounting issues

Accounting Section Managing Committee meets at The Homestead, Hot Springs, W. Va., June 29 and 30. At head of table are (right) Bernard S. Rodey, Jr., committee chairman, Consolidated Edison Co. of New York, Inc., New York; (left) Paul E. Ewers, vice-chairman, Michigan Consolidated Gas Co., Detroit

Many members of the course are learning, for the first time, the functions of number systems, such as decimal, binary, and octal; binary code decimals, excess 3, biquinary, self checking; circuit elements, relays, vacuum tubes, cathode ray tube, metallic diodes, pulse generating components; a new vocabulary and definitions, such as access time, word, block, memory, delay line, flip flop, program, storage, and more generally, information processing machine to establish a vocabulary for communication purposes.

Following the 48-session program, a more limited program of 16 to 20 sessions will be given to line department heads and management representatives.

Although the present course has been designed for employees of The Peoples Gas Light and Coke Co., information concerning the course will be made available to the public after its completion. It is anticipated that the *Syllabus* will be given to American Gas Association for distribution to its member companies.

Pipeline tests

(Continued from page 9)

low temperature test is made. Before each line is ruptured, it will be surrounded by large quantities of dry ice. Household-type electric fans will circulate the cool air and permit control of temperatures to within five degrees Fahrenheit.

To measure the speed at which the crack travels, fine wires will be cemented around the pipe's circumference at accurately measured distances. The wires will be connected to an electronic timing device. As it extends along the pipe, the crack will break the wires, causing the time to be recorded when the wires break. From those times, the engineers can figure the velocity of the crack.

Other devices will be connected to the pipe to measure temperature and stress.

Because notches and deep scratches have a lot to do with failures, the pipe will be purposely notched. A small detonating charge will be placed at that point to touch off the fracture.

Mr. de Mey heads the Line Pipe Field and Laboratory Research Committee. This group is part of a subcommittee on natural gas transmission and distribution which was formed within American Standards (ASA) to develop a national standardized code for pressure piping.

Administrative work of forming the code within the ASA is being supervised by the American Society of Mechanical Engineers.

In addition to Mr. de Mey, members of the group in charge of the Athens tests are B. D. Goodrich of Shreveport, La., vice-president and chief engineer of Texas Eastern; Earl Smith of Cleveland, chief metallurgist of Republic Steel Co., and Arthur Wilder of Pittsburgh, Pa., chief metallurgist of National Tube Division, U. S. Steel.

Consultants to the group are Lloyd Jackson of Columbus, assistant director of Battelle Memorial Institute; Harry Udin of Cambridge, Mass., assistant professor of metallurgy, Massachusetts Institute of Technology, and E. C. Wright of Tuscaloosa, Ala., professor of metallurgical engineering at the University of Alabama.

Although the natural gas industry initiated the idea of revising the national code and has been the principal force behind it, related industries and organizations interested in the same subject are taking major parts in the program. These include the petroleum, steel and iron industries, consulting engineering firms, federal and state regulatory bodies, pipeline equipment manufacturers, educational institutions and also insurance companies.

Cost of the pipe fracture tests and laboratory work is being split among the steel industry, natural gas pipeline industry and natural gas utility companies.

Mr. de Mey noted that in conjunction with the pipe fracture tests, the group plans to experiment on the related subject of secondary stresses.

"PEP" sales drive off to flying start

Mr. Hanthorn is manager of the hotel and restaurant division, Philadelphia Gas Works Division, The United Gas Improvement Co.

By CHARLES C. HANTHORN

Chairman, Sales Promotion Subcommittee, A. G. A. Food Service Equipment Committee

a PAR activity

Your Association's Industrial and Commercial Gas Section has launched a P. E. P. national sales campaign on commercial gas cooking equipment. "P" for performance; "E" for economy; "P" for profit—they all add up to P. E. P. This intensive effort to stimulate sales will continue through October and November. Participation will give your company:

(1) Closer relationship with equipment dealers!
(2) Insurance against loss to competition!
(3) Better equipment requiring less service!
(4) Increased commercial load!
(5) "Pepped-up" sales effort!
(6) Better trained salesmen!

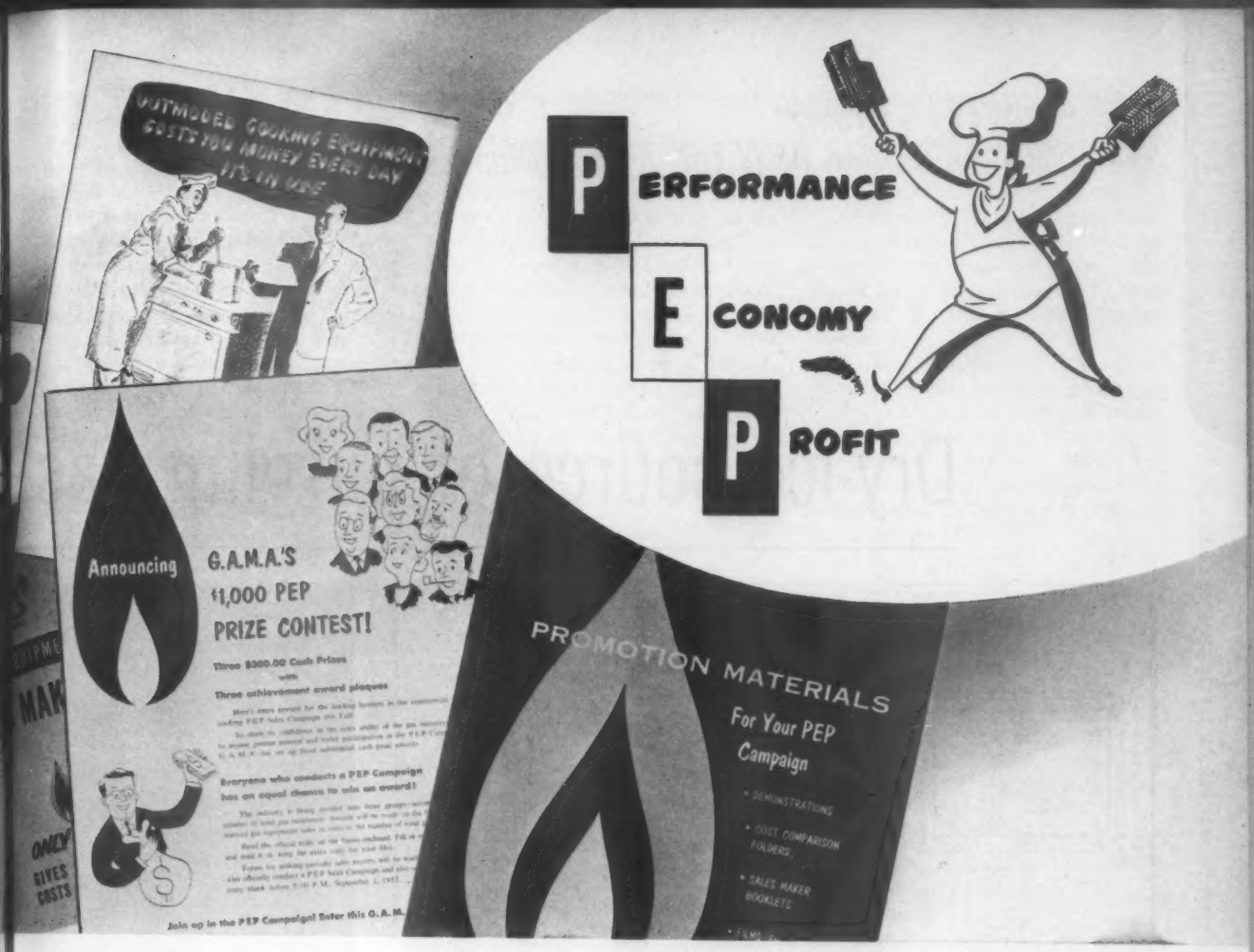
Everything is ready to help you get on the band wagon for increased sales in your community.

Excellent results obtained by those utilities who actively conducted a commercial cooking equipment sales campaign last year proved conclusively that their efforts were not in vain. Therefore, the A. G. A. Sales Promotion Subcommittee of the Food Service Equipment Committee decided that a similar campaign on a broader scope should be conducted this year.

Months of intensive effort have been consumed in formulating this year's campaign and a complete sales campaign brochure has been prepared and mailed to all utilities. The results of last year's successful campaigns have been publicized and all commercial department managers are aware of the benefits to be derived.

Slogan for this year's campaign is P. E. P., a very appropriate one as it signifies "Performance, Economy, Profit" with the use of modern gas commercial cooking equipment. This campaign is designed to promote more sales for the utility, manufacturer and kitchen equipment dealer. The sales aids included in the campaign brochure make it almost effortless to conduct a successful campaign.

The portfolio has been mailed to all member gas companies and requests have come in from many of them for additional copies. Manufacturers have re-



quested portfolios for their salesmen to show to dealer customers and gas company contacts. Never before in the history of the Section's sales activities has such a comprehensive plan been made available to the entire industry that serves the volume food service field—utilities, manufacturers and equipment dealers.

The committee has provided materials to meet the needs of large and small companies alike. The plan is so flexible that it can be adapted to most any conditions anywhere—either wholly or in part.

While some few member companies do appliance merchandising and can set up a campaign to suit their own needs, the P. E. P. Campaign is primarily designed for dealer cooperation. It is the regularly established restaurant equipment dealer who sells well over 90 percent of the commercial gas cooking equipment in use today.

The greater portion of heavy duty cooking appliances in hotels and restaurants is rapidly becoming obsolete. New, modern and efficient equipment will save your customers money, provide them with better equipment to produce a better product, and give a more satisfactory all-round performance.

There are many materials available to help you wage a successful sales campaign in your territory.

First, there is a detailed outline on how to plan and promote the campaign and how to get the kitchen equipment dealer enthused. He is the keystone of volume sales. The A. G. A. Commercial Cooking Bureau has many aids that you will want to bring to dealer's meetings. There is the new colored slide film presentation showing some 70 outstanding kitchen installations. It is something new and different—a real incentive to salesmen to go out and duplicate these successful establishments.

Then there is that fine film—full color and sound—"Where Food is Finest." Showings to date have only scratched the surface of dealer groups.

Printed materials include the "Commercial Gas Cooking Equipment Sales Maker," a new book of pointers for salesmen to use in answering customer's questions, plus tips on selling new and specialty appliances.

"What's the Score" is a new publication on gas versus electricity. It includes a complete analysis of costs in both types of kitchens. This is a *must* for all salesmen. This and "The Alfonso Story" make up the most complete and authoritative data available on competitive costs in the commerical kitchen.

How to make friends and influence people—that phrase has become more or less of a joke. But it's no joke when you have a "Maintenance Chart" in your customer's kitchen. You'll surely make a friend.

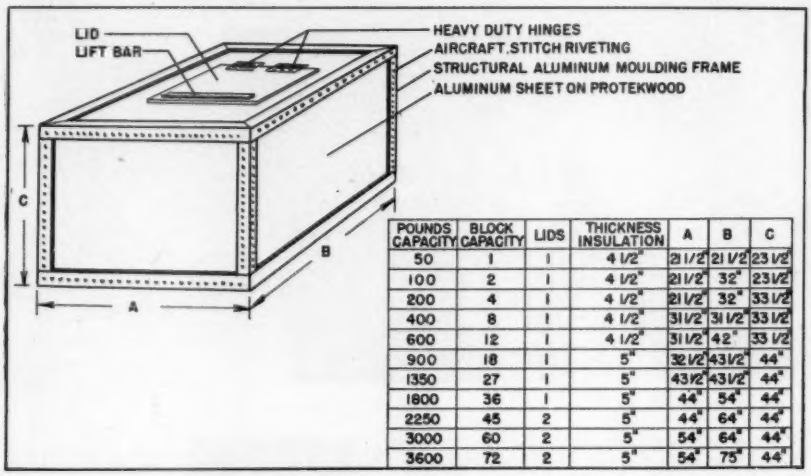
"Thrifty Tips" on how to save food and fuel in volume cooking is a valuable

(Continued on page 56)

CHANNING W. WILSON, *CHAIRMAN* • FREDERICK J. PFLUKE, *VICE-CHAIRMAN*

Solid dry-ice easier to handle
and usually cheaper than liquid CO_2 for pipe purging

Dry-ice source of purging gas



POUNDS CAPACITY	BLOCK CAPACITY	LIDS	THICKNESS INSULATION	A	B	C
50	1	1	4 1/2"	21 1/2"	21 1/2"	23 1/2"
100	2	1	4 1/2"	21 1/2"	32"	23 1/2"
200	4	1	4 1/2"	21 1/2"	32"	33 1/2"
400	8	1	4 1/2"	31 1/2"	31 1/2"	33 1/2"
600	12	1	4 1/2"	31 1/2"	42"	33 1/2"
900	18	1	5"	32 1/2"	43 1/2"	44"
1350	27	1	5"	43 1/2"	43 1/2"	44"
1800	36	1	5"	44"	54"	44"
2250	45	2	5"	44"	64"	44"
3000	60	2	5"	54"	64"	44"
3600	72	2	5"	54"	75"	44"

Fig. 1. Dry-ice storage and shipping box with handling lug and lid clamp is manufactured by Space Gas Co., Millburn, New Jersey. Dimensions for capacities are listed at lower right

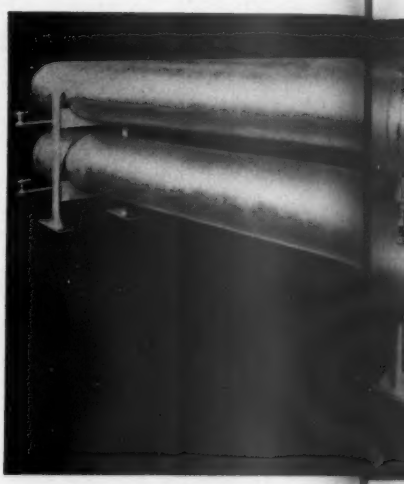


Fig. 2. Converter, manufactured by Dry Corp., capacities ranging from 150 to 1000 p CO_2 at

By DONALD L. WHITE

Chief Chemist
Washington Gas Light Company
Washington, D. C.

• Written exclusively for the MONTHLY. Contributed by the A. G. A. Purging Committee under chairmanship of G. Russell King, senior engineer, Philadelphia Electric Company.

Solid carbon dioxide (dry-ice) blocks are a useful and satisfactory source of gaseous carbon dioxide for purging operations.

In most areas, carbon dioxide blocks are available in various sizes up to 50 pounds. If the areas are adequately covered by distributors, "dry-ice" can usually be obtained in large quantities, and quickly. In fact, experience has shown that it can be obtained more quickly and on shorter notice than liquid CO_2 in cylinders. This has the effect of providing larger capacity for purging operations.

The CO_2 blocks can be stored without appreciable loss in specially designed, well-insulated storage boxes. Figure 1 illustrates a commercially available storage box, together with a table of dimensions for various capacities.

Dry-ice is usually lower in price than liquid CO_2 in cylinders.

One considerable advantage in the use of dry ice is that the expensive transportation of cylinders to and from the job is eliminated. With dry ice, the hauling expense is for 100 percent useful material. No rehandling is required.

In handling the dry ice, gloves should be worn by the men because there is the hazard of "frost-bite". Careless handling and contact of unprotected skin with the blocks should be avoided.

During gasification of the dry ice, adequate technical supervision should be available at all times, and the properties of CO_2 in all its phases should be thoroughly understood by those responsible for its use.

Solid carbon dioxide can be changed into a gas in special apparatus called "Converters", which may be purchased from manufacturers or fabricated by the gas utility.

High pressure converters

High pressure converters (see Figure 2 above) can be purchased or rented in capacities ranging from 150 pounds

(about 1200 cu. ft.) to 1000 pounds (about 8000 cu. ft.) to supply CO_2 gas at either low or high pressure. For larger flows of gas, single units can be manifolded. Mobile units are also available.

The units are produced in accordance with code regulations for tanks or unfired pressure vessels, and are constructed to withstand the vapor pressure of CO_2 at atmospheric temperatures. Design working pressure is about 1400 psig, and test pressure is 3000 psig hydrostatic.

The size will vary from about six to 18 feet in length, of eight-inch to 20 inch O.D. pipe.

Full end openings are provided for charging dry ice into the converter. In the small size converters, the blocks must be broken into small (two or three inch pieces) before charging. In the larger sizes, full size 50# blocks can be charged.

Suitable outlets are provided for attachment of safety valves, pressure gauge, liquid or/and gas draw-off lines, etc. If structural changes in the converters are desired to meet special requirements, such changes should be made by the manufacturer during fabrication. Field welds on such vessels should not be attempted unless careful consideration is given to stress relieving, class of alloys used, and all other provisions of the pressure vessel code.

The fittings, as valves, elbows, etc., must be of bronze or steel. Cast iron must never be used.

Because of the pressure vessel code requirements, it is recommended that a utility company should never attempt to make its own high pressure CO_2 converter.

The "dry-ice" is placed into the converter and the outlets are closed. The dry-ice passes into its gaseous phase until the vapor pressure has risen to the point where CO_2 liquid is formed. As long as this pressure remains, the liquid will remain in the liquid phase. Therefore, either liquid or gas may be withdrawn from the converter. This is one of the chief advantages of high pressure converters: Dry-ice may be charged into them a day or two before the purging job is to be done. During this period the dry-ice is completely liquefied, and a large part of the heat required has been transferred.

To hasten the sublimation of the dry-ice, when the blocks are charged at the time of purging, warm water rings or other heating devices are often installed, or ordinary tap water may be sprayed over and about the exterior of the converter. The amount of heat required is governed by whether liquid or gaseous CO_2 is required.

To use a high pressure converter, the general steps are as follows:

(1) Open the blow-off valve to release all the pressure in the converter. If more than one unit is used, be sure the cross connecting valve or valves are tightly closed.

(2) Remove or swing open the complete closure assembly. Inspect the interior of the unit for water and cleanliness.

(3) Fill with the rated dry-ice capacity. In charging the converter, it should be filled to only about 65-70 percent of its volume. Never attempt to fill it full. The unit's designed capacity allows for the 30-35 percent gas space.

(4) Replace the closure assembly after the dry-ice is in the converter. Open the blow-off valve so gas can escape while the closure is being made tight. After the closure is sealed and tight, close the blow-off valve tight.

(5) Watch the pressure gauge on the converter. When the desired pressure is reached, CO_2 may be drawn off to the apparatus to be purged.

If the rate is not fast enough, the "heating apparatus" may be turned on, and regulated to maintain the desired rate of flow of CO_2.

(6) The tests for purging-end-points are made as outlined in the sections for cylinder and liquid CO_2.

In all but some special cases of gas apparatus purging, it should not be necessary to allow the pressure in the converter to rise to that for the liquid phase. Low pressure gas should be satisfactory for most purging applications.

Corp., Tulsa, is available in CO_2 at high or low pressures

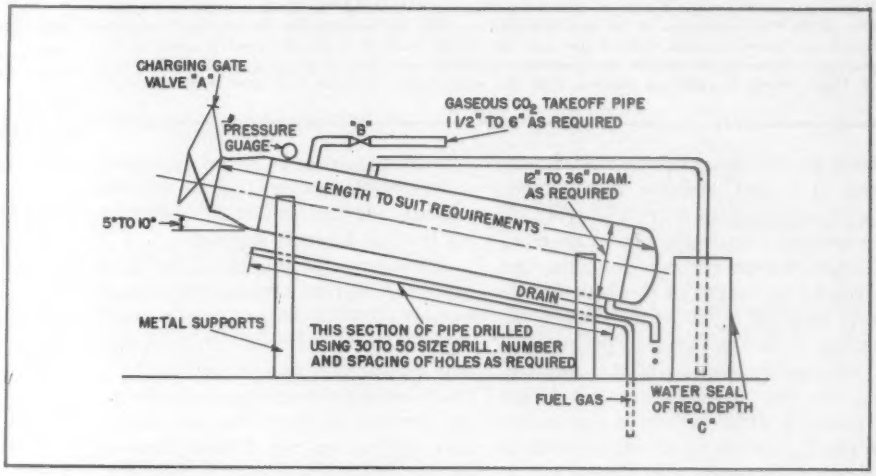

CHARGING GATE VALVE "A"
PRESSURE GUAGE
"B"
GASEOUS CO_2 TAKEOFF PIPE 1 1/2" TO 6" AS REQUIRED
12" TO 36" DIAM. AS REQUIRED
LENGTH TO SUIT REQUIREMENTS
5" TO 10"
DRAIN
METAL SUPPORTS
THIS SECTION OF PIPE DRILLED USING 30 TO 50 SIZE DRILL. NUMBER AND SPACING OF HOLES AS REQUIRED
FUEL GAS
WATER SEAL OF REQ. DEPTH "C"

Fig. 3. One basic design of equipment now being used to convert solid CO_2 to low pressure gas. Model may be constructed of 12-inch to 36-inch diameter pipe in lengths up to 15 feet

Low pressure converters

Equipment for converting solid CO_2 to low pressure (up to 20 psig) gaseous CO_2 may be constructed of pipe.

The basic design used by one gas utility company is shown in Figure 3. It may be made of 12-inch to 36-inch diameter pipe, in lengths up to 15 feet. This length limit is caused by the difficulty of packing the dry-ice satisfactorily

Florida utility adds Hasche gas maker

Hasche gas making machine recently installed by Peoples Water and Gas Co., North Miami, Florida. One of the first installations of its type by a gas company, the machine can convert liquid propane into a gas interchangeable with oil gas now distributed. Used on a standby basis to serve an expanding community, the Hasche can produce two million cubic feet of gas a day. Phyllis Sherman of North Miami is receiving pointers from the maintenance foreman and plant superintendent.

from the "charging opening A" at one end. If desired, however, two or more "charging openings A" may be provided at intervals between the ends of the pipe. If gate valves are not available, the charging openings can be blanked with any material of sufficient strength to withstand the low operating pressure.

The gasification rate of any converter is a function of its heat transfer ability. To supply sufficient heat, a gas burner is attached consisting of simply a section of one or two-inch pipe drilled with a number of holes of 30 to 50 drill size. The number of holes will be governed by the pressure of the fuel gas available. Such a burner has been used satisfactorily with fuel gas low pressures up to 20 psig. More efficient or elaborate burner arrangements can be made if desired. The addition of water in the converter about doubles the heat transfer from the burner to the dry-ice, and will accelerate CO_2 production.

With a design as shown in Figure 3, a converter 10 feet long by 20 inches in diameter would produce gaseous CO_2 at a rate between two and six Mcf per hour depending upon heat transfer, the amount of gas used for heating, and the amount of water (if any) with the dry-ice. Heating gas consumption will depend upon the converter and burner design, but a minimum of 100,000 Btu per Mcf of gaseous CO_2 per hour should be provided.

There appears to be no practical limit to the size of converter that may be constructed, and capacities of 20 to 50 Mcf per hour can be easily attained.

A converter of this type should be protected against excessive pressure owing to the low temperatures prevailing at points of dry-ice contact. Ordinary mild steel has a very low resistance to impact at the temperature of subliming dry-ice. Furthermore, with direct heat application, the thermal stresses in the converter wall may be high.

In most cases, pressure requirements for purging will be low, and the converter operating pressure can be held below five psig. The water seal shown at "C" in Figure 18 has been found to provide a simple, inexpensive and highly efficient method of pressure control.

In cases where gas-filled equipment such as a holder is being purged, a check valve or other return seal should be provided at the outlet in order to prevent back flow of combustible gases.

In general, the steps in operating the low pressure converter are:

(1) Open drain and drain out all water, if any, and open "charging Gate Valve A."

(2) Break the dry-ice blocks into two to three-inch pieces. Charge them into the converter through gate valve "A", and pack them by means of a suitably shaped hoe. (The hoe is a section of steel plate attached to a sufficiently long rod. The plate must be able to pass through gate valve "A", and should have the contour of the converter's cross-section.)

(3) Close gate valve "A", and simultaneously open valve "B" on the CO_2 gas line. Observe pressure.

(4) Turn on the fuel gas to the burner and ignite. Watch the pressure gauge and control the rate of gasification can be controlled by the heating flame.

Note: If the converter must be recharged during the purging operation, extinguish the flame, close valve "B", and repeat operations 1-4.

(5) Test for the end points of the purging apparatus as discussed previously.

(6) When purging is completed, extinguish the burner flame; drain the water, if any; open valve "A"; close valve "B". Allow remaining solid CO_2 to gasify, unless other use warrants the removal of the remaining dry-ice pieces.

Precautions

Caution and care are required in handling the dry-ice to prevent "burns", and the inhalation of the CO_2 gas. Insulated gloves, cloths, or tongs should be provided for handling.

Other applications

Practically no information could be found in the trade journals concerning the use of solid CO_2. The most complete text is an article entitled "Use of Solid CO_2 in Purging Gas Holder," by Stanley Jones, deputy engineer and manager, Middlesborough Gas Company, England, which appeared in *The Gas World* of June 5, 1948.

This article points out that:

"The holder was emptied of gas, the inlet and outlet drips were sealed with water and the inlet and outlet mains were cut and capped.

"The actual purging (of the gas holder) was carried out by removing the manhole cover above the inlet pipe of the holder. The required (estimated) number of 25-28 pound blocks of CO_2 were thrown into the holder, which operation took about two minutes. The manhole cover was replaced.

"Gaseous CO_2 was evolved rapidly for about one hour after which it gradually decreased, and the falling off con-

tinued until, after about 5 hours, it ceased abruptly.

"The fact that the CO_2 took longer to be completely evolved than was anticipated was attributed to the immersion of the CO_2 blocks in the silt and tarry sludge at the bottom of the holder tank.

"During the course of the operation, orsat tests for CO_2 and O_2 were carried out continuously in order to determine the proportions of CO_2, air and gas present.

"The conclusions which have been drawn from the operations are:

"(1) The use of solid CO_2 as a means of providing gaseous CO_2 for a purging operation is rapid, simple, and effective.

"(2) The use of solid CO_2 would only apply to small holders where the cost of hiring and transport of a purging machine would not be justified.

"(3) The use of solid CO_2 eliminates the necessity for the fitting of pipes and valves associated with the use of a purging machine and CO_2 in cylinders.

"(4) If possible, immersion of the CO_2 in tarry sludge at the bottom of the holder tank should be avoided. This could be accomplished by placing the CO_2 in buckets or suitable containers which could be lowered through the manhole and suspended by ropes, the manhole cover being then sealed with clay.

"(5) The use of solid CO_2 also suggests itself as a convenient method of purging small tanks such as benzole tanks, petrol tanks and small gas containers before repairs are carried out. In the case of a tank which has contained a liquid fuel, it is of course obvious that all traces of the volatile liquid should be removed before purging is carried out."

This particular purging operation, although successful, includes several undesirable conditions concerning the use of solid CO_2, such as:

(1) The unpredictable length of time for the gasification of the solid,

(2) The necessity for making an opening in the equipment to be purged large enough for the required number of CO_2 blocks to be inserted. This does not appear to be a safe procedure, as live gas would be emerging from the opening, causing both a fire hazard and a physical health hazard to the workmen.

On the basis of the above facts, the use of solid CO_2 in this manner is not recommended.

Promising future forecast for coal gasification

● Excerpts from paper "High Btu Gas from Anthracite" by L. L. Newman, gas engineer, Fuels and Explosives Divisions, U.S. Bureau of Mines. Presented during Eleventh Annual Anthracite Conference of Lehigh University, Bethlehem, Pa., earlier this year.

THERE is every reason to expect that the manifold activities in gasification, purification, and gas synthesis conducted in the United States and aboard will result in practical processes for the manufacture of high Btu gas from coal, whether lignite, bituminous, or anthracite. Progress has been quite rapid and will continue to be as long as the incentive for continuing research and development activities exists.

It must be recognized that, if the solid-fuels industry wishes to recapture the home heating markets, it must give domestic fuel consumers the kind of fuel and service they prefer and are rapidly becoming accustomed to. This fuel, in the near future, will be principally natural gas, and gasification research and development work will soon make it possible for solid fuels to provide an equally good substitute for it in the form of high-Btu gas.

Domestic consumers are not as sensitive to fuel price differentials as industrial users. Once domestic consumers have become accustomed to gas service they will continue to demand it and will be prepared to pay the higher prices that future supply problems may warrant. The solid fuels industries, with the anthracite industry enjoying its full share, can then step in and profit from the opportunity of continuing the gas service.

Cathodic protection short course announced

A SHORT COURSE on cathodic protection —believed to be the first offered by an American college—will be given at the University of Illinois, Urbana, October 12-16. The National Association of Corrosion Engineers is cooperating with the university in presenting the course. Professor Ray Wainwright, of the university's electrical engineering staff, is coordinator, and all instructors are members of NACE.

Cost of five-day course is $47.50; this fee includes lectures, laboratories, demonstrations, notes and notebook, five luncheons and a banquet.

The practical course is open to 50 persons and is not limited to college graduates.

R. B. Mears, manager of research and development, United States Steel Corp., and former president of NACE, will be a featured speaker at the short course banquet. Dr. Mears has long been recognized as an authority on corrosion mitigation, and is the author of many papers on corrosion fundamentals.

Registration information can be obtained from Professor R. K. Newton, 713½ South Wright St., Champaign, Illinois.

A four-day short course has been announced at the Texas A&M College, September 22-25.

The tentative program includes sessions on corrosion fundamentals, materials of construction, cathodic protection, instrumentation and special topics. Additional information is obtainable from J. D. Lindsay, chemical engineering department, A&M College of Texas, College Station.

LP-gas stored underground in Louisiana salt caverns

GENERAL GAS CORP., Baton Rouge, distributor of liquefied petroleum gas, has completed work on two huge underground storage caverns in Louisiana, and has started to fill them with four million gallons of LP-gas. The gas, purchased under favorable summer market conditions, will be available for retail sale during peak winter demand periods.

Current plans call for the fuel to remain in the caverns hundreds of feet underground for from five to seven months, depending upon fall and winter refinery prices and the start of the winter heating season.

Preparation of the storage caverns was accomplished by geologists and hydraulic engineers who located massive 200 million-year-old salt deposits and then forced water down into them through a steel shaft. The water—circulated under pressure—dissolved the salt formations and forced brine back up a smaller pipe to the surface, creating and constantly enlarging the cavities until desired storage capacity was reached. The gas can be recovered by pumping brine down one pipe. This action forces the gas up another pipe, into tank cars and trucks.

General Gas' giant subterranean storage vaults—hydraulically mined out of massive salt deposits at a fraction of the cost of above-ground steel storage tanks—will be enlarged next year to a combined capacity of eight million gallons.

RAYMOND J. VANDAGRIFF, *CHAIRMAN* · RAYMOND LITTLE, *VICE-CHAIRMAN*

NY-NJ conference outlines competitive new selling techniques

Industry leaders urge increased sales tempo

Frank C. Smith (left), president of A. G. A. and Houston Natural Gas Corporation, relaxes between sessions with Sales Council Chairman Hugh L. Wathen, general sales manager, South Jersey Gas Company

Gas industry sales executives and representatives at the New York-New Jersey Regional Gas Sales Conference at Spring Lake, N. J., June 29-30, were urged to use every available sales and merchandising aid to increase the promotion of gas and gas appliances. More than 200 delegates attended the conference which was sponsored by the American Gas Association's Residential Gas Section.

Hugh L. Wathen, chairman of the New York-New Jersey Regional Sales Council, and general sales manager, South Jersey Gas Co., Atlantic City, presided at the opening session. He welcomed delegates and outlined the purpose of the conference.

William J. Schmidt, assistant vice-president and general sales manager, Long Island Lighting Co., Mineola, N. Y., and chairman of the A. G. A. Residential Gas Section, presented Frank W. Williams of the A. G. A. staff with a token of the committee's appreciation of his work as secretary of the section and its many committees. The gift, presented on behalf of the Managing Committee, was a handsome silver tea service purchased with individual contributions from members of that committee.

Frank C. Smith, president of A. G. A., and president, Houston Natural Gas Corp., delivered the opening address. He pointed out that the gas industry today is in an excellent position, with revenues, volume and customers at new high levels. However, sales of gas appliances are not keeping up with this trend. Since the interests of both the gas utilities and the gas appliance manufacturers are interdependent in most areas, boards of directors of both A. G. A. and GAMA are in mutual agreement that increased effort on the part of both industries is vitally necessary if the gas industry is to retain its base load.

Reviewing sales records of competitive appliances, Mr. Smith showed that sales of electric ranges are increasing in the upper price range much more rapidly than sales of quality gas ranges. Most of the gains registered by gas appliances are in the lower-price brackets.

He reviewed briefly the major objectives of the Gas Industry Development Plan, adopted by both associations, to upgrade appliances and to increase sales of improved appliances. This plan has received top-level support and is being put into effect, Mr. Smith said. Ten cities have been selected with a view to geographic location, type of utility, and including large and small companies. In these cities pilot plant operation of the development plan will be carried out. Results of the pilot plant operations will be brought to all the gas industry.

A dealer sales program soon will be in operation, and an accelerated A. G. A. Laboratories Testing program designed to upgrade gas appliances is being launched. The A. G. A. Promotion Bureau now has experienced promotion representatives out in the field. These men are calling on subscribers to the industry's Promotion, Advertising and Research (PAR) Plan, and other utility companies, enlisting their support for A. G. A. promotion campaigns and acquainting the companies with the many sales, advertising and promotion aids available from A. G. A. headquarters. Mr. Smith asked the help of all sales representatives present in carrying out the Gas Industry Development Program.

W. Q. Kringle (left) Los Angeles, discusses A. G. A. promotional material with Jack Frost, Brooklyn, chairman-elect of 1954 Sales Council

Superiority of automatic gas water heaters is demonstrated at New York-New Jersey Regional Gas Sales Conference by Jack R. Lavelle (center) district manager, Ruud Manufacturing Co., Philadelphia. He is assisted by Roy Cousins (left) and Roy Eby (right), members of the Ruud sales staff

Speaker Edward McFaul (right), confers with J. C. Shear, Rockland Light & Power Co., Spring Valley, N. Y., program committee member

Gene Flack, director of advertising and sales counsel, Sunshine Biscuit Company, humorously forecasts the sales picture

Small gas utilities can sell the base load says Hansell Hillyer, president, South Atlantic Gas Co., Savannah

James M. Donnelly, vice-president in charge of sales, Servel, Inc., and president of Gas Appliance Manufacturers Association, affirmed Mr. Smith's belief in the ultimate success of the development plan. In an address, "Now Is The Time," Mr. Donnelly told of the huge advertising and promotion effort Servel is putting behind its new modern gas refrigerators. He said the new "ice-maker" feature has benefited through wide publicity and that gas utilities and dealers should capitalize now on these selling aids.

A practical demonstration of the use of A. G. A. advertising and promotion material was given by W. Q. Kringle, supervisor dealer sales and promotion, Southern California Gas Co., Los Angeles. Using black-and-white and also color slides, Mr. Kringle showed how his company uses A. G. A. material to supplement its efforts in television, billboard advertising, local newspaper and magazine advertising, radio and in display work. He stressed the necessity of getting sales messages across to dealers as well as consumers. Advertising and promotion campaigns must be interpreted to dealers, he said.

He urged the gas utility companies to work with dealers on new housing developments and showed how dealer cooperation can be strengthened through listing dealers in the displays on gas utility company sales floors. Mr. Kringle urged proper training of dealer salesmen in installing as well as in selling appliances. Home service representatives can be a great help in assuring consumer satisfaction when new appliances are installed, he said.

Edward McFaul, sales counsel from Chicago, concluded the Monday session with an interesting talk on the psychology of selling.

Jack B. Frost, assistant sales manager, The Brooklyn Union Gas Co., and vice-chairman of the Regional Council, presided at the Tuesday meeting. Hansell Hillyer, president, South Atlantic Gas Co., Savannah, told how small companies, either manufactured or natural gas, can build up the base load. He said some utility executives may be mistaking luck for genius and considering the normal addition of customers and the normal rate of replacement as constituting a successful record. He admitted he had made the same error during the early years he operated the group of utilities comprising his company.

He took strong exception to the belief that the small, manufactured gas company is doomed. While his own company would soon convert to natural gas, he had proved that a re-vitalized sales force, intensive promotion, and intelligent advertising could build up the base load with manufactured gas against competitively priced fuels. To do this, he said, gas utilities and dealers must sell more and more appliances on existing mains as well as in new home markets. To keep up with competition, replacement sales should be better than ten percent yearly of the appliances on the lines he said. The day of 20-year obsolescence is past. Our industry must raise its sights on research, promotion and dealer cooperation, Mr. Hillyer concluded.

Gas has no equal as a medium for transferring energy, J. R. Lavelle, district manager, Ruud Manufacturing Co., Pittsburgh, told the conference. The use of electricity for water heating is a misapplied service, he declared. In an en-

Henry Rohrs (left), Elizabethtown Consolidated Gas Co., discusses program with Monday speaker James F. Donnelly, Servel, Inc.

Jack Frost (right), The Brooklyn Union Gas Company, commends speech on selling and promotion by B. B. Turner, The Maytag Co.

tertaining skit, Mr. Lavelle, assisted by Roy Cousins and Roy Eby, also from Ruud, demonstrated the superiority of an automatic gas water heater in fully meeting the hot water demands of the modern housewife. The skit showed how the quick recovery feature of the gas water heater assures instant delivery of hot water at any hour of the day, even after the drain of dishwashing and a heavy laundry demand.

B. B. Turner, sales manager, range division, The Maytag Co., Newton, Iowa, gave a dramatic demonstration of the need for new ideas in manufacturing and selling gas ranges. With a simple chart, he showed the three phases of merchandising of any product.

In the initial phase, advertising and promotion introduce the product, show how it is made and for what it is used. The sales curve rises slightly in this phase. In the second phase, the product gains public acceptance and the sales curve rises sharply. Here the sales promotion theme stresses why it will work better than competitive products.

In the third phase, the point of saturation is reached. The sales curve flattens out and the sales appeal reverts to bargain prices.

The gas range industry is now in the third stage, Mr. Turner declared. He quoted figures given by Frank Smith, showing that 80 percent of gas ranges sold were priced under $200 and that 50 percent of all ranges sold were priced less than $150. At the same time, competitors are capitalizing on new features and selling the convenience and advantages of modern electric ranges at much higher prices.

Strip a product of its features in order to reduce the price and you strip it of its glamour, Mr. Turner declared. He emphasized that substitution of profit for high quality is contrary to the American system of free enterprise.

Mr. Turner added that under the leadership of Frank C. Smith and other utility executives, aggressive new ideas in merchandising gas and gas appliances are spreading across the country. Quality is replacing price appeal. He estimated that nearly 60 percent of the women using gas appliances in their kitchens today do not know the brand names of those appliances. He asked utilities and dealers to search their markets to find new features that could bring gas ranges back into the first two phases of the marketing spiral.

The conference ended on an inspiring note as Gene Flack, director of advertising and sales counsel, Sunshine Biscuit Co., Long Island City, assured delegates they "never had it so good." Spendable income is at an all-time high. Population growth is at a high rate, bringing promise of new markets. Manpower and materials today are available in good supply, making possible the greatest peacetime industrial production the nation has ever known.

Mr. Flack told the delegates that if they put to work some of the truths they had learned during the conference, the Gas Industry Development Program would be a sure success.

Public relations

(Continued from page 12)

area, and its uses in the Chicago area. These have been widely distributed both to investors and public groups, including our employees.

We believe our company is better regarded in the community we serve as a result of our public relations activity; that the public has a readier desire to make fuller use of gas service, and to do so with more modern gas appliances so that they enjoy better service, and in turn our service problems are lessened. We further believe that in the case of space heating, the families waiting for such service have reasonable patience with us in this shortcoming because we have frankly and honestly stated our position to them through mass media advertising and publicity.

We base this conviction on numerous available indications from the public and the press.

Those who choose to take a dim view of a modern public relations program as a major corporate activity and a major management responsibility, still are entitled to ask the question: "How can you be sure of all this? How can you prove what you have been saying?"

Impartial public opinion surveys were made by outside survey organizations in 1948 and 1952. These surveys give unmistakable indications that our public relations communication program has been effective in a way that is beneficial for our company and is well worth the money we are spending on it.

This is a highly competitive society.

We cannot sit back and permit those who would displace our product with others, or would substitute another method of doing business for ours, to monopolize the stage. We must tell our story—clearly, sufficiently, factually and with conviction. Public relations is woven into the life thread of the gas utility industry. It is no longer something that lives by sufferance alone. It is a full-share partner with all other members of the organization, carrying its share of the burden and responsibility.

An informed public is an understanding one. It will believe in our intentions and practices. It will have confidence in our product and service. Thus will we insure both the present and the future of our industry—Gas, The Magic Flame.

Industry news

100 gas utilities to receive safety awards

ONE HUNDRED gas utility companies will receive awards for outstanding accident prevention work at the fifth conference sponsored by the Accident Prevention Committee of American Gas Association at the Statler Hotel in Buffalo, New York, on September 17 and 18.

Top awards will be made to the ten member companies having the best accident prevention experience in 1952 in a classification of companies as to size. Additional awards will be presented to 90 companies that reduced the frequency of accidents 25 percent or more in 1952 as compared with 1951.

A. S. Hancock, safety director, Long Island Lighting Co., Hicksville, N. Y., is chairman of the A. G. A. Accident Prevention Committee. A strong and varied program has been arranged by a subcommittee serving under Howard T. Jayne, Philadelphia Gas Works Division of The United Gas Improvement Company. One of the highlights will be a showing of three new film shorts arranged by a subcommittee headed by C. W. Fuller, Empire Gas & Fuel Co., Wellsville, New York. These include "Extinguishing High Pressure Gas Fires" produced by United Fuel Gas Co.; "Get Safety in Your System," sponsored by A. G. A. Accident Prevention Committee, and High Pressure Hot Taps," sponsored by Southern Gas Association.

Chairman Hancock will open the first morning session with an address "The Accident Prevention Committee Moves Ahead". O. F. Flumerfelt, president, Iroquois Gas Corp., Buffalo, N. Y., will welcome the guests. The company has arranged a full day of entertainment for ladies attending the meeting.

"Safety as a Stepping Stone to Good Public Relations" will be expounded by the next speaker, A. M. Beebee, president, Rochester Gas and Electric Corp., Rochester, N. Y. P. A. Clarke, personnel director, Northwestern Utilities Limited, Edmonton, Alberta, will follow with a talk on "Industry's Most Valued Asset". W. L. Hoare, director of employee relations, The Ohio Fuel Gas Co., Columbus, will conclude the morning session with a presentation "Accidents are Taboo—at Ohio Fuel Gas".

Two features have been scheduled for the luncheon. E. S. Beaumont, director of safety, The Peoples Gas Light and Coke Co., Chicago, Ill., will deliver an address on a topic to be announced. W. H. Adams, A. G. A. safety consultant, will present awards for accident prevention work.

In the afternoon, John MacLellan, manager of the accident prevention department, The Hydro-Electric Power Commission of Ontario, Toronto, will discuss "Safety in the Bush-League." Valuable pointers are expected to be forthcoming from the talk "A Foreman Views Safety with an Experienced Eye," by a representative from Niagara Mohawk Power Corp., Syracuse, N. Y. Pierce J. Connelly, supervisor, engineering department, Johnson & Higgins Co., New York, N. Y., will be concluding speaker of the afternoon on the topic, "Safe Handling of LP-Gases and Natural Gas Fires". Showing of the three film shorts will follow.

A. S. Hancock

H. T. Jayne

On the evening of September 17, conferees will be the guests of Mine Safety Appliance Company at an open house in the Statler Hotel.

The second morning session has been reserved for a special panel presentation on "Common Problems". Leo Nuhfer, safety director, The Peoples Natural Gas Co., Pittsburgh, Pa., will lead the discussion. Panel members will include: Keith J. Burnett, general superintendent, United Gas and Fuel Limited, Hamilton, Ontario; M. J. Mix, chief operating engineer, The Peoples Gas Light and Coke Co., Chicago, Ill. and A. H. Doud, assistant director of public relations, Rochester Gas and Electric Corp., Rochester, N. Y. A fourth panel member will be announced.

Final event on the program will be a full business meeting of the Accident Prevention Committee.

New office space for A.G.A. Laboratories

NEW administrative and clerical offices are being built in the recently erected south wing addition to the American Gas Association Laboratories in Cleveland, Ohio. Completion of this work is scheduled late in 1953.

An expenditure of $115,000, is involved in relocation of the present administrative offices. The project will provide for further expansion of the Laboratories' facilities for administration of the gas industry's appliance approval program and the conduct of research on gas appliances and accessories under the A. G. A. PAR Program.

The new administrative section is to be provided with an enlarged committee meeting room for use by the gas industry and space for the Laboratories' library. Office space will be provided for the Laboratories' director and his staff, as well as the Accounting, Stenographic and Standards section. The center area of the second floor south wing will provide improved storage facilities for publications and office supplies and a general conference area for the staff.

This phase of the expansion program is another step in the history of the A. G. A. Laboratories since their founding in Cleveland in 1925. Today, these Laboratories, with facilities at Cleveland and Los Angeles, have over 70,800 square feet in which to serve the gas industry through its closely coordinated research, standards, methods, testing and inspection programs.

Gas to air condition 700-home development

THE LARGEST home installation of air conditioning equipment ever undertaken by a single manufacturer is under construction in Little Rock, Arkansas. Known as Broadmoor, the development will consist of 700 fully gas air-conditioned houses equipped with combination cooling-heating units for economic year-round living comfort.

Servel, Inc., Evansville, Ind., in cooperation with Arkansas Louisiana Gas Company of Little Rock, is installing its new two-ton gas air conditioning units in the first 104 homes—expected to be completed by spring.

The ranch type homes are in the $10,995-$17,000 price range. Four of these will be completed early this month in time for showing at National Home Week, September 20-26.

According to John A. Gilbreath, vice-president in charge of air conditioning at Servel, the two-ton, direct-fired air conditioner to be used in the Broadmoor homes fulfills requirements set by the nation's builders who have been seeking a practical system for low-priced houses. He outlined the following desirable points as set by the National Association of Home Builders:

(1) Cost—Ten percent of the price of the home. (2) Dimensions—Unit to occupy a maximum of 12 square feet of floor space. (3) Sound—Quiet operation necessary because of difficulties of isolating noise in a home. (4) Installation—Preferably delivered as a unit instead of being assembled on the site. (5) Low maintenance costs and long life.

The Servel two-ton unit requires only 8½ square feet of floor space and is 75 inches high. It is delivered completely assembled less ductwork.

Third utility management workshop planned

PLANS are now well advanced for the Third Utility Management Workshop sponsored by the Department of Industrial Engineering, Columbia University, during the latter part of May 1954. This concentrated two-week workshop is devoted specifically to exploring successful methods for utility executive development. It will be conducted at Arden House, Harriman, N. Y., home of the American Assembly where the two previous Workshops were held in August 1952 and May 1953.

Nearly three score utility executives have completed the two previous workshop sessions. Many companies have been represented by one or more of their executives at both sessions. These companies in particular recognize the fact that executive development is a highly important subject. This is especially true in our rapidly growing gas industry and it is expected that more gas utilities will be taking advantage of the 1954 Workshop. Enrollment will be limited to 45 in an effort to intensify individual participation.

The third Workshop will have two major tasks. First, will be a study of what a manager does as an aid to defining what a manager is. The second task will be devoted to the practical aspects of development of management talent. Several outside experts in various fields will augment a well-qualified staff in stimulating and pointing the way toward a solution of this important problem by the workshop participants.

The workshop technique applied to this type of problem has important advantages. Formal classroom sessions are held to a minimum. Most of those held are conducted by visiting specialists who discuss their specialty as related to the over-all problem. They also contribute greatly through participation in informal discussion periods with the Workshop members. Informality prevails throughout, free discussion is spontaneous, and day-to-day management problems are discussed and possible practical solutions explored.

Participants at this spring's Utility Management Workshop included four gas men: Joseph A. Reynolds, The Brooklyn Union Gas Co., Brooklyn, N. Y.; John H. Hayes and F. B. Jones, Equitable Gas Co., Pittsburgh, and Horton Lloyd Chandler, NEGEA Service Corp., Cambridge, Massachusetts.

President A. W. Conover of Equitable Gas Company has arranged for Mr. Hayes and Mr. Jones to conduct a series of evening sessions that will give the utility's management staff the benefit of lessons learned at the workshop.

"We have no hesitancy," Mr. Conover added, "in recommending the Columbia Workshop to any utility interested in doing something about improving their management staff. We suggest that individuals chosen should be carefully selected and should have an interest in and opportunity to do something about up-grading the management staff. Lastly, we suggest that a company sending representatives to the Workshop should be prepared and willing to carry out consistent development activities at home. A two-week session at a workshop will not do the job for any one individual as it is only the beginning step toward achieving enlarged executive capacity."

A.G.A. forms marketing research committee

AMERICAN GAS ASSOCIATION has formed a new subcommittee of the Committee on Economics to foster increased emphasis upon market research activities of member companies. It is believed that further emphasis on this subject will be an effective means of maximizing the advantages to be derived from advertising and promotional efforts under the Gas Industry Development Program.

More immediately, the new Subcommittee on Marketing Research will provide guidance to the A. G. A. Bureau of Statistics in the development of appliance sales potentials. First meeting of the subcommittee was held June 25 and 26 in Kansas City.

The new marketing research group will concentrate on the following lines of action: Assist the Association in all market research activities; initiate specific industry wide marketing studies; maintain liaison with marketing groups of other organizations, and provide technical advice in evaluating the success of A. G. A. promotional expenditures.

F. B. Jones, manager of economic and management research, Equitable Gas Co., Pittsburgh, is chairman of the subcommittee. His group plans to publish in the A. G. A. MONTHLY a special series of feature articles showing how specific marketing research applications have aided top management in policy formulation and cost savings.

Serving with Mr. Jones on the subcommittee are: Hale A. Clark, vice-president and sales manager, Michigan Consolidated Gas Co.; J. S. Cooke, manager of budgets and statistics, Laclede Gas Co., St. Louis; Newton Croll, supervisor, system planning, the Philadelphia Gas Works Division of U.G.I.; J. R. Guidroz, residential sales manager, New Orleans Public Service, Inc.; J. L. Hall, supervisor of residential gas sales staff, Southern California Gas Co.; R. I. Mendes, manager, market research and sales control bureau, Pacific Gas and Electric Co.; G. A. Morgan, superintendent, market research department, The Peoples Gas Light and Coke Co., Chicago; D. L. Sedgwick, assistant to vice-president in charge of sales, Northern Natural Gas Co., Omaha, Neb.; H. A. Weitzman, manager, rate and economics research department, Rochester Gas and Electric Corp., and J. A. Wilson, manager, Houston, division, United Gas Corporation. Daniel Parson, director, A. G. A. Bureau of Statistics, is secretary of the group.

Cabinets and appliances sparkle for TV

A. G. A.'s kitchen studio, which the Hollywood Bureau operates on a rental-free basis for producers of television and commercial films, spotlights modern kitchen styling and automatic gas appliances. (See A. G. A. MONTHLY, March 1953, p. 11). Permanent cabinets have been installed by Lyon Metal Products, Inc., while gas appliance manufacturers rotate contributions. Gas appliances starring in this particular kitchen are an O'Keefe & Merritt range; Servel Icemaker refrigerator; Day & Night Div., A.G.E. water heater; and Bendix gas dryer and automatic washer.

A.G.A. wins safety award

AMERICAN GAS ASSOCIATION has been granted the Association Safety Award of National Safety Council. More than 25 separate types of activity were rated and A. G. A. was included among the first 11 qualifying associations. Seven other associations reported worthwhile activities but were unable to qualify.

Awards will be presented by Council President Ned Dearborn at a luncheon in the Morrison Hotel, Chicago, on October 20 during the National Safety Congress.

SGA workshop features homemakers' panel

HOME SERVICE directors from nine states were represented at the Home Service Workshop of Southern Gas Association in Tulsa, August 6 and 7. Chairman Dorothy Fairchild of Southern Union Gas Company in Port Arthur, Texas, presided at the meetings which were held in the home service headquarters of Oklahoma Natural Gas Company.

Greeting the group were L. J. Fretwell, chairman of the SGA sales section, Oakah L. Jones, district manager in Tulsa, and Mildred R. Clark, home service supervisor, all from Oklahoma Natural Gas Company.

Home service participants in the program were: Mary Rye of the West Texas Gas Co.; Mrs. Betty Hollis, Southern Union Gas Co.; Mary Evelyn Boaz, Arkansas-Western Gas Co.; Mrs. Jean Castleberry, Alabama Gas Corp.; Julia Hunter, Lone Star Gas Co.; Ann Goff, The Gas Service Co.; Elizabeth Feibelman, Chattanooga Gas Co. and Mildred Ann Smith, Nashville Gas Company.

The exchange of literature was in charge of Thelma Bly and Mrs. Margaret Wilson, both of Southern Union Gas Company. Laverna Best of the Tulsa district was in charge of local arrangements.

Equipment presentations were presented by manufacturers representatives as follows: "Dry Those Tears"—Murriel Bridge, Bendix Home Appliances; "Primitive Man and His Garbage"—Gene Brown, Calcinator Corp.; "Customer Instructions for Servel Refrigerators"—Powers E. Kirven, Servel, Inc., and "Food and Features"—a demonstration by Jane Dowdy, Caloric Stove Corporation. Bernice Strawn, Household Equipment Editor of *Woman's Home Companion*, discussed "How to Make Your Writing Effective."

"Friendly Focus" homemakers' panel. Pictured with the five participating homemakers are: (fourth from left) Rosemary Locke of Tulsa, panel chairman; (sixth from left) Dorothy Fairchild, chairman of the 1953 workshop and home service director, Southern Union Gas Company at Port Arthur, Texas; (far right) Mildred Clark, home service supervisor, Oklahoma Natural Gas Company

The Homemakers' Panel was a departure in program planning. Five Tulsa homemakers representing five different family situations, were chosen to answer a survey prepared by Mildred Clark on the effectiveness of home service activities in home calls, demonstrations and printed materials. Each participant previously had interviewed five other homemakers. Panel members summarized their findings and graciously but frankly pointed out what homemakers think, want and need in utility programs of work. Rosemary Locke, Oklahoma Natural Gas Co., was moderator of this "Friendly Focus" panel.

The entire Workshop attended the television show "Lookin' at Cookin'," conducted by Mrs. Kay Atha and Mrs. Marilyn Lucas of the Oklahoma Natural Gas Company—a concluding feature of the full two-day program.

Statistics prove wide popularity of gas appliances

AMERICAN homes long have had more ranges, water heaters, room heaters and floor and wall furnaces operating on gas than on any other fuel. Now a six-year summary compiled by Gas Appliance Manufacturers Association shows that the use of gas for central heating systems has increased in greater proportion than any other type.

For instance, 14,853,100 gas ranges have been sold during the past six years, compared with 8,156,000 electric ranges. During the same period 12,066,800 gas water heaters and 5,390,000 electric storage water heaters were sold.

Gas central heating systems, which have gained wide acceptance since the war because of the spread of the nation's network of natural gas pipelines, were behind oil systems in sales during the six-year period. Oil units numbered 4,202,200 and gas 3,590,600. However, gas central heating systems actually in use jumped from 2,300,000 in 1947 to 5,371,000 in 1952, a gain of 3,071,000. This figure can be compared to the gain in use of oil from 3,651,000 to 6,292,000—up 2,641,000. Coal stoker systems dropped from 1,186,000 in 1947 to 1,061,000 at the end of 1952.

Gas direct heating units, those used to warm single rooms or small areas, also topped those using other fuels. The tally shows 11,790,200 gas, 9,284,100 oil or other liquid fuel and 6,274,200 coal and wood units sold from 1947 through 1952.

Sales of gas floor and wall furnaces exceeded those using oil by more than two million. Gas unit sales totaled 2,844,200 as compared with 498,900 for oil.

Sales figures for the first six months of 1953 are equally heartening. For instance, shipments of domestic gas ranges increased 10.2 percent during this period over the comparable period of 1952.

Gas ranges shipped during the period totaled 1,144,600 units, compared with 1,038,300 during the same period of last year. June shipments amounted to 169,300 units, 3.6 percent under the 175,700 total for the same month of 1952.

Shipments of gas-operated househeating equipment continued to rise during June, and to show encouraging sales figures for the first six months of the year. Gas-fired furnace shipments totaled 46,200 units during the month, a 26.2 percent gain over the 36,600 shipped during June 1952. The June estimate raised the total for the first six months to 219,300 units, an increase of 28.9 percent above last year's 170,100 for the same period.

Gas-fired boiler shipments increased for both June and the first half of 1953. Figures show that 6,100 boilers were shipped in June for a 10.9 percent gain over the 5,500 shipped also in the same month last year. Total shipments for the first six months were raised to 25,800 as compared with 25,200 during the first half of 1952, a gain of two percent.

Gas conversion burners, which fell below 1952 during the first three months, picked up strongly during the second quarter to come within 0.2 percent of last year's first-half shipments. Unit shipments for June numbered 20,700, a 26.2 percent gain of the 16,400 units shipped during the same month of last year, and increased the first six months total to 81,200 as compared with 81,500 for the first half of last year.

Shipments of automatic gas water heaters continued to rise during June and topped 1952 six-month levels by 26.5 percent. June gas water heater shipments totaled 178,300 units, a 12.1 percent gain over the 159,000 units shipped during the comparable month of last year.

The June estimate increased the total for the first six months of the year to 1,158,300 units as contrasted with 915,400 for the same period of 1952, accounting for the 26.5 percent gain.

IGT publishes Research Bulletin Number 4

a PAR activity

CATALYTIC cracking of natural gas and other hydrocarbons of low molecular weight has achieved industrial importance as a method for producing utility gases and petrochemical raw materials. Emergency conditions, economic factors or depletion of hydrocarbon sources may necessitate charging sulfur-contaminated stocks not now useable because of loss of catalyst activity due to sulfur poisoning.

Results of a search, conducted by the Institute of Gas Technology under the sponsorship of the American Gas Association, for a highly active, sulfur resistant catalyst, are presented in IGT Research Bulletin No. 4, *Cracking Catalyst Activity in the Presence of Hydrogen Sulfide*, prepared from experimental data of C. H. Riesz and J. J. S. Sebastian by H. A. Dirksen, H. R. Linden and E. S. Pettyjohn.

Elements known to have activity in the steam-hydrocarbon and related reactions were tested in oxide, sulfide, and reduced forms. They were nickel, iron and cobalt of Group VIII, chromium, molybdenum and tungsten of Subgroup VIa, and vanadium, columbium and tantalum of Subgroup Va, with thoria and zirconia of Subgroup IVa as promoters. Their activities in the absence of sulfur were first determined; then hydrogen sulfide was added to the feed stream and their activities were noted at half-hour intervals for the three hours of each test.

GAMA reveals natural gas expansion data

A DETAILED PICTURE of the projects, companies and communities involved in the multi-billion-dollar expansion program of the natural gas industry is presented in the 1953 edition of *Natural Gas Construction Data*. The 50-page brochure is published by Gas Appliance Manufacturers Association.

It shows how FPC approval of more than 10,000 miles of pipeline construction during the past two years will bring new natural gas services to 165 communities of more than 50,000 population. Similar data is supplied on applications now before FPC which will involve an additional 12,709 miles of pipeline construction which is expected to cost $1,143,292,000.

The study was made to provide banks, insurance companies, investment houses and other financial organizations with information about the expansion of the natural gas industry.

The brochure lists the 165 cities which will receive new natural gas services, provides the names and addresses of the pipeline and operating utility companies participating in pipeline construction approved from July 1, 1945 through May 31, 1953. It details the mileage, cost, line sizes, estimated steel line pipe tonnage, compressor horse power, FPC docket numbers and purpose of pipeline projects authorized, completed or pending from July 1, 1945 to January 1, 1953.

Copies of the brochure are available at $2.00 apiece from the Marketing and Statistical Department, Gas Appliance Manufacturers Association, 60 East 42nd St., New York, 17.

Columbia Gas films explain rate problems

TWO NEW COLUMBIA Gas System motion pictures explain the rate situation in every day economic terms.

One of the films, "Protest," is set in a community where a citizens' committee is meeting to investigate a proposed gas rate increase. Most of the citizens think such an increase would be harmful to the community.

Just when they are ready to propose a resolution against the increase, one member suggests that they hear the gas company's side.

A gas company attorney gives them an entirely different viewpoint by showing how higher company expenses without similar rate increases can impair gas service and therefore be harmful to the community.

The second picture, "A Case for Two Witnesses," illustrates the effect of inadequate gas rates on employees and stockholders. Action takes place during a hearing before a public utility regulatory body.

By calling two witnesses whose story is seldom told at rate hearings, the company attorney shows the rate regulators that they have an obligation to the utility's employees and stockholders as well as to the customers.

"The Legend of Dan and Gus," the movie released last September, won first place in the motion picture division of the better copy contest sponsored by the Public Utilities Advertising Association. It also was one of seven public relations films chosen for showing at the Cleveland Film Festival.

Manufacturers announce new products

● **Incinerator**—The Consum-all by Cribben & Sexton burns *everything* except cans and bottles, without a trace of odor or smoke. The cylindrical incinerator was designed to duplicate, on a smaller scale, efficient industrial models. Three models, for bottled or city gas, are fully automatic and have passed every safety test.

● **Range**—Tappan's "Holiday" model has big 24-inch oven that will cook a meal for 30 people. However, range requires floor space of only 30 inches! Broiler is located at waist-high level, and all burners light automatically. Glass oven door, oven light, clock, timer, fluorescent top lamp, appliance outlets are other "big range" features in this compact model.

A deluxe, medium-priced gas range for compact kitchens is offered by Magic Chef, Inc. The 36-inch range was introduced at the June Furniture Market and its features include a divided cooking top, right-hand oven, swing-out broiler, storage compartment, clock-timer, fluorescent light, convenience outlet, and "oven-eye."

● **Air Conditioner**—Small residential unit, designed for the modern basementless home selling for less than $15,000, has been introduced by Typhoon Air Conditioning Company. Model "S-W" takes up only five square feet of floor area, is rated at two and three ton cooling capacity; and is available for use with oil or gas.

Gas measurement institute to be held in Kansas

ENROLLMENT of 150 to 200 is expected at a two-day Gas Measurement Institute scheduled for October 5 and 6 in Liberal, Kansas. Arrangements for this Southwest Kansas Petroleum Short Course are being made by a committee of industry representatives working with the University of Kansas Extension Center at Garden City, Kansas.

Objective of the institute is to present practical information covering the measurement and regulation of natural gas through orifice and displacement meters. Discussions will be designed to help supervisory men who are experienced in this field of work. At least half of each period will be devoted to questions and answers.

Schedule of the two-day institute is as follows:

October 5 (Morning)	Displacement Meters A. F. Benson, American Meter Co.
October 5 (Afternoon)	Orifice Meters L. K. Spink, Foxboro Co.
October 6 (Morning)	Measurement Calculations J. L. Cottrell, Rockwell Manufacturing Co.
October 6 (Afternoon)	Deliverability Methods of Testing Wells—Panel Discussion

Registration fee for the institute is $5. Frank T. Stockton, director of special projects for University of Kansas Extension, Lawrence, will serve as moderator. Advance registrations should be mailed to the K.U. Center at Garden City, Kansas.

Manufacturers display hallmark of quality

THIRTY-THREE manufacturers of industrial gas equipment have been authorized to use a new "signer seal" trade-mark, signifying conformance with the code of ethics recently adopted by the Gas Appliance Manufacturers Association's industrial division.

F. C. Schaefer, chairman of the GAMA division, reported that the seal may now be used on all of the more than 25,000 different varieties of gas equipment in American industry to signify that they were made to conform with the "highest standards of safety, performance and durability."

The seal will be used as a promotional symbol in advertising and merchandising and also as a sign of quality workmanship. The seal will be imprinted on shipping cartons, crates, letterheads and other materials.

GAMA members authorized to use the seal are:

Gehnrich and Gehnrich, Inc., Woodside, N. Y.; Gas Consumers Association (Norwalk Valve Co.), N. Y.; Heatbath Appliances, Inc., Springfield, Mass.; Mid-Continental Metal Products Co., Chicago; Beck Engineering Combustion Co., St. Louis; Webster Engineering Co., Tulsa; The Partlow Corp., New Hartford, N. Y.; American Gas Furnace Co., Elizabeth, N. J.; Eclipse Fuel Engineering Co., Rockford, Ill.

Selas Corp. of America, Philadelphia; Surface Combustion Corp., Toledo; North American Manufacturing Co., Cleveland; P. M. Lattner Manufacturing Co., Cedar Rapids, Iowa; C. M. Kemp Manufacturing Co., Baltimore; Sellers Engineering Co., Chicago; Spencer Turbine Co., Hartford, Conn.; F. J. Fieser Co., N. Y.; Wilder Manufacturing Co., Niles, Ohio; Ernest C. Lundt, Inc., Little Falls, New Jersey.

The Gas Machinery Co., Cleveland; Bryant Industrial Div., A. G. E., Inc., Cleveland; Roberts-Gordon Appliance Corp., Buffalo; Mears-Kane-Ofeldt, Inc., Div. of S. T. Johnson Co., Forest Hills, N. Y.; Sonner Burner Co., Winfield, Kansas; John Zink Co., Tulsa; Groen Manufacturing Co., Chicago; Gold Top Heating, Inc., Butte, Mont.; Carbomatic Corp., Freeport, N. Y.; Red-Ray Manufacturing Co., N. Y.; Gas Appliance Service, Inc., Chicago; Hauck Manufacturing Co., Brooklyn; Killam Gas Burner Co., Denver; Iron Fireman Manufacturing Co., Cleveland.

New "Gas Facts" features innovations

A GOLD MINE of statistical material about the gas industry is contained in the new 1952 edition of *Gas Facts*. Published each year by the American Gas Association's Bureau of Statistics as a handbook of operating and financial information, *Gas Facts* is based on information submitted to the Association by member companies. This year, the handbook correlates the records of companies representing over 94 percent of gas customers, revenues and sales.

There are several innovations, including information about the use of gas and competitive fuels for cooking and househeating; statistics on underground storage; indexes of weekly market prices, dividends and yields for common stocks of 30 selected natural gas companies. The facts on underground storage are presented as a result of two years' work done by the A. G. A. Committee on Underground Storage, while the stock indexes have been prepared by Moody's Investors Service and are the first to be representative of the entire industry. Other information was derive from the Census of Housing, conducted by the U.S. Government in April, 1950.

Included again in *Gas Facts* are data covering reserves; transmission; distribution, sales and utilization; financial results; construction expenditures; labor and prices.

Copies of this statistical handbook may be obtained at one dollar per copy from the Bureau of Statistics, American Gas Association Headquarters, New York City.

46 engineers attend IGT refresher courses

FORTY-SIX engineers from all sections of the country have attended the second annual Refresher Courses in Gas Engineering presented by Institute of Gas Technology, Chicago.

Schedule of the courses was: natural gas, June 15-July 3; transmission and distribution, July 6-July 24; natural gas substitutes, July 27-August 14; utilization of gaseous fuels, August 17-September 14. Engineers could apply for enrollment in a single course only, or in several of the courses. In all cases, the men attended at the expense of their employing companies. Some employers sent two or more men.

The most popular course proved to be "Transmission and Distribution," with an enrollment of 28 engineers. Those who attended are shown in the accompanying photo, left to right: (front row) R. F. Bukacek, IGT instructor; Albert W. Buckley, Roanoke Gas Co.; W. M. Stanley, C. J. Conrad and R. K. Hansen, The Manufacturers Light and Heat Co.; IGT Director E. S. Pettyjohn; William N. Darling and Henry F. Giblin, The Peoples Gas Light and Coke Co.; Roy F. Roberts and James H. Rhodes, Jr., Alabama Gas Corp.; Bert E. Eakin, IGT instructor.

Shown in the second row are: Mal C. McCallum, Seattle Gas Co.; Bernie Wilenzick, Interstate Natural Gas Co.; Harry A. Moore and Harry J. Schneider, Rockwell Manufacturing Co.; Kenneth Wharff, Michigan-Wisconsin Pipe Line Co.; Charles S. McGee, Kansas-Colorado Utilities Co.; Donald C. Hulbert, Rochester Gas and Elec. Corp.; Tom B. Henshaw, Portland Gas and Coke Company.

Third row: Paul A. Hoglund, Seattle Gas Co.; Parry Keller, Harvey W. Preslan and Raymond A. Day, The East Ohio Gas Co.; Carl Howell, Washington Gas Light Co.; Robert R. Dixon, Natural Gas Pipeline Company of America; William K. Holm, Texas Illinois Natural Gas Pipeline Co.; John F. Dolson, Natural Gas Pipeline Company of America.

Fourth row: Thomas J. Quayle and Edward R. Rogers, Jr., The East Ohio Gas Co.; Richard F. Kruger, Brooklyn Borough Gas Co.; B. Frank Harris, Consolidated Gas Electric Light and Power Company of Baltimore.

In the rear row are IGT Fellows for whom the courses are required work in their studies for a Master's degree, left to right: Ira E. Kanter, George N. Numsen, Richard W. Huffman, Ralph G. Zelmer, Eugene F. Witt, Richard N. Miller, George F. Field, Gerald J. Robertson.

SGA filmstrip shows high pressure line taps

THE PROPER steps to be followed in tapping a high pressure gas line are illustrated and explained in a new color filmstrip "High Pressure Hot Taps" sponsored by accident prevention council of Southern Gas Association.

Texas Gas Transmission Corp., which supervised production of the filmstrip, has never had an accident while making a tap under pressure. The new film is a pictorial review in color of the safe use of a tapping machine for pressures in excess of 1200 pounds per square inch.

Price for filmstrip and record is $35. Order from Southern Gas Association, 1932 Life of America Building, Dallas, Texas.

Illustration from new SGA filmstrip "High Pressure Hot Taps" showing how the bell hole was excavated making certain that its size was adequate to accommodate the tapping machine and at the same time allow freedom of operations. Steps were dug in one end of the hole and a ladder placed near the other end. A clean hole with good facilities to move in and out is a good, safe practice

American Natural plans

AMERICAN NATURAL GAS COMPANY plans to form a new subsidiary under the name of American Louisiana Pipe Line Company. The subsidiary will build and operate a new 1,000-mile natural gas pipeline designed to supply the system's markets in Michigan and Wisconsin. An application for permission to form the subsidiary has been filed with the Securities and Exchange Commission.

Federal Power Commission announces rate changes

UNITED GAS PIPE LINE CO.—Approximately $827,000 out of a $1,778,000 wholesale natural gas rate increase proposed by United Gas Pipe Line Co., Shreveport, has been suspended by the Federal Power Commission.

The commission ruled that the remaining $951,000 of the proposed $1,778,000 is not subject to suspension because the Natural Gas Act exempts rates for the sale of natural gas for resale for industrial use only. These rates are subject to investigation and to revision.

AMERE GAS UTILITIES, Charleston, W. Va., has been granted a $33,000 wholesale natural gas rate increase. The increase is under bond and subject to refund. Amere's proposed increase had been suspended in January, 1953.

Convention delegates to view featured gas kitchens

a PAR activity

AMERICAN GAS ASSOCIATION'S New Freedom Gas Kitchen Bureau, cooperating with Laclede Gas Co., St. Louis, will display nine magazine-featured kitchens during October and November. The project is sponsored by the Association's PAR (Promotion Advertising Research) Program. A. G. A. convention delegates as well as the general public will be invited to the exhibit, which will be constructed on the sales and home service floors of the St. Louis utility.

In addition to national magazine coverage, the Parade of Kitchens will be spotlighted on October 25 in a special 64-page rotogravure section of the *St. Louis Post-Dispatch*. The section, half in color, will be devoted exclusively to the exhibit.

Unique among the kitchens will be the Mutschler Brothers Company's second Heart Saver kitchen featured in the *Woman's Home Companion*. The original Heart Saver was designed specifically for homemakers handicapped by heart ailment, and stresses modern work simplification principles. The new Heart Saver has been built in a trailer and is available for local utility showing.

Other noteworthy magazine kitchens to be shown at the exhibit are featured in *American Home, Family Circle, McCall's, Living for Young Homemakers, Better Home & Gardens,* and *House & Garden.*

Cabinet manufacturers cooperating in the Parade of Kitchens include Mutschler Bros. Co., American Kitchens, Republic Steel Corp., Youngstown Sheet & Tube Co., Mengel, Lyon Metal Products, Inc., and Geneva Kitchens.

International Gas Union convenes in Paris

REPRESENTATIVES OF AUSTRIA, Belgium, France, Germany, Great Britain, Italy, Netherlands, Saar, Spain, Sweden and Switzerland attended the International Gas Union sessions in Paris. The council meeting, held on May 15 and 16, was led by M. Brabant, honorary president. Mr. Brabant substituted for R. W. Hendee, president, who was unable to attend.

Other international gas industry leaders present were A. Baril, honorary president; Dr. W. T. K. Braunholtz and P. Mougin, honorary secretaries general. Delegates from America, Canada, Denmark, Japan and Norway were unable to attend.

The session stressed examination of technical questions to be studied on an international level. The problems were divided among the several national associations in the union. Provided the American Gas Association gives its approval, A. G. A. will sponsor the following projects:

National Reports

Problems relating to the distribution and utilization of natural gas, oil refinery gases, liquefied and other, and their further treatment (reforming).

Sizing of flues of all types (i.e., masonry, metal and other types) for handling gas appliance flue products for optimum appliance performance.

Individual Papers

Practices used in gas distribution companies and in transmission of gas for leak detection.

Comparison of speed, capacity and fuel consumption in industrial finish drying with: gas-fired low temperature radiant panels, gas-fired high temperature radiant panels and convection type ovens.

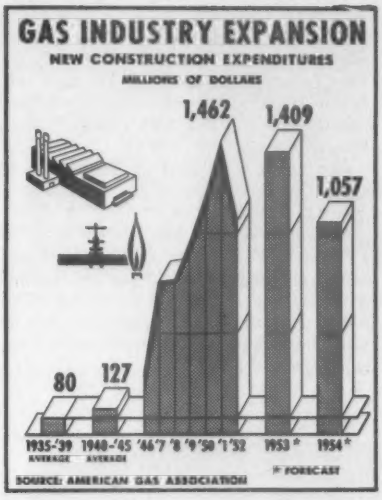
Research in the field of conversion to other gases of appliance burners designed for town gas; research in design of an "all-gas" burner.

A. G. A. pictograph service gains large audience

GAS INDUSTRY expansion is dramatized in the latest pictograph released by the Public Information Bureau of American Gas Association. Important aspects of gas industry progress are dramatized in the Association's monthly pictograph service for newspapers and trade magazines. Financial houses have also found the pictographs helpful to their investors. A limited number of glossy prints and mats can be obtained from the A. G. A. Public Information Bureau.

The August pictograph (see accompanying illustration) notes that:

"In the seven postwar years, expansion of the gas industry has averaged nearly a billion dollars per year, or ten times the rate of development in the prewar period. A large part of the money spent was used to extend the national network of natural gas pipelines into new areas. As a result of this expansion, almost a million new customers a year have been added to utility gas lines which now serve 26 million users in the United States."



Man from Mars display helps sell gas

A NOVEL EXHIBIT to promote "out of this world" gas appliances was developed this summer by the Honolulu Gas Equipment Co., Hawaii. At the center of the exhibit, which the company prepared for Hawaii's 49th State Fair, was a rocket space ship shooting a trail of flame. In the background were appropriate moons and planets, while a Man from Mars described the different gas appliances to exhibit visitors.

As an added attraction, a double-oven gas range was given away to one of the booth's 30,000 spectators, with the explanation that "We don't know how they cook on Venus, but here, we do it best on a Caloric gas range!"

FPC considers two Northwest gas supply proposals

Pacific Northwest Pipeline Corporation estimates that its American natural gas reserves are 3.6 trillion cubic feet. The figures are revealed in information submitted by the company during Federal Power Commission hearings on applications to supply natural gas to the Pacific Northwest and areas in Colorado, Wyoming and Idaho.

Two applications are before the commission for decision. One is the Pacific Northwest proposal, or "U.S. Plan". The other plan is being proposed by Westcoast Transmission Company and other interests who desire to sell surplus Canadian gas from the Peace River area of Alberta and British Columbia to American markets. The "U.S. Plan" would cover an area with three million population and the "Canadian" proposal, an area of approximately two million.

Change Mid-West Gas School date

THE PROGRAM of the Mid-West Gas School and Conference, previously announced for September 10 and 11, at Iowa State College, Ames, has been extended to include the afternoon of September 9.

The afternoon will be devoted to a field demonstration of digging, backfilling, and all types of construction equipment. Success of a similar demonstration in 1952 has prompted repetition and enlargement of the demonstration this year.

M. K. Wrench, Omaha, program chairman and second vice-president of Midwest Gas Association, has outlined the program for the gas school and conference. It will include, in addition to the field demonstration, sessions on distribution, utilization, general management, meter section meetings, and the servicemen's school. Public and utility safety will be stressed throughout the conference.

Gas aids auto industry

AUTOMOTIVE ENGINEERS at the Willys Motors Toledo plant find natural gas best to test the Jeep motor before it leaves the factory. Gas Appliance Manufacturers Association reports that technicians prefer the fuel because no carbon deposits form and the motor is kept clean for the future owner. However, natural gas is impractical as a regular automotive fuel because it vaporizes too quickly.

Engine testing is only one of many uses for natural gas in the industry. Production of rugged but lightweight parts demands instant, constant heat to assure uniform strength and physical properties.

Natural gas is vital to the production of gear teeth and most of the steel frame. Engine forgings are tempered in gas furnaces and body finishes are baked in gas-fired ovens.

Attention photographers!

HAVE you entered the A. G. A. MONTHLY frontispiece contest? It's not too late to submit those dramatic and artistic photographs you have been holding. Entries should be vertical and accompanied by a 25 word caption. Prize is ten dollars for each picture selected as a cover illustration.

A. G. A. group visits Ohio glass plants

Glass and Ceramics Processing Subcommittee meets in Columbus, Ohio. Left to right: C. B. Cole, Rochester, N. Y.; A. H. Navarre, Toledo; M. O. Kaufman, Dayton; Subcommittee Chairman R. C. LeMay, Philadelphia; D. E. Young, Columbus; T. Z. Dunn, Zanesville, Ohio; H. C. Weller, Toledo; R. L. Lang, Zanesville; S. G. Moran, Baltimore. Members visited glass plants in area

Hulswit succeeds Lovett as Rockland Light and Power president

CHARLES L. HULSWIT has been elected to succeed Fremont L. Lovett as president of Rockland Light and Power Co., Nyack, N. Y., and its subsidiaries, Rockland Electric Co. and Pike County Light & Power Company. Mr. Hulswit was also elected a director of Rockland Electric Co. and Pike County Light & Power Company.

Mr. Lovett was killed on June 13 in an aircraft accident. (See A. G. A. MONTHLY, July-August 1953, p. 47.)

Before his election, Mr. Hulswit served as a vice-president and director of the parent company and vice-president of the two subsidiaries. He joined Rockland Light and Power last year when Rockland Gas Co., Inc., of which he was president, was acquired by Rockland Light and Power.

Mr. Hulswit was graduated from the engineering college of the University of Michigan with a bachelor of science degree in electrical engineering. From 1925 to 1929 he was associated with Peoples Power Co. of Moline, Illinois as an assistant engineer in charge of electric and gas production and distribution. In 1929 he joined American Commonwealth Power Co. as a supervising engineer in charge of the construction of a vertical coke oven plant at Bangor, Maine.

Early in 1930, Mr. Hulswit was sent to Rockland County, N. Y. and placed in charge of the operations of the Ramapo Gas Corp. and West Shore Gas Co., suppliers of manufactured gas service. In 1935 these companies were merged into Rockland Gas Co., Inc. and the operation was converted to straight natural gas. He was vice-president of Rockland Gas from 1930 until 1937 when he was elected president.

C. L. Hulswit

Mr. Hulswit has been an active member of American Gas Association for many years. Last year, he was chairman of the Operating Section's Manufactured Gas Production Committee, and this year he is a member of that committee and of the section's Managing Committee.

Personal and otherwise

Loomis appointed Brooklyn Union executive

RICHARD B. LOOMIS has been elected vice-president and secretary of The Brooklyn Union Gas Co., New York.

Mr. Loomis joined the utility in 1924 as a clerk in the new business department. In 1932, he was elected assistant secretary and in 1934, secretary. In 1945, he was named assistant vice-president and secretary.

Mr. Loomis studied at Clark and Columbia Universities, and received his law degree in 1932 from Brooklyn Law School. He received a master's degree from the same school in 1934.

Mr. Loomis is a member of the American Gas Association and is currently serving on the Corporate Secretaries' Committee. He is also a past-president of the New York Group, American Society of Corporate Secretaries and has taken part in many charitable activities.

Richard B. Loomis

Parkinson and Smoker advance at United Gas Improvement

THE UNITED GAS IMPROVEMENT CO., Philadelphia, has elected Martin H. Parkinson as executive vice-president and Edward S. Smoker as vice-president. Robert S. Williams succeeds Mr. Parkinson in his former position of comptroller, and Mr. Smoker succeeds Fred B. Hofft, who retired recently.

Mr. Parkinson has been vice-president and comptroller of U.G.I. since 1949, having joined the organization after service in executive positions with utility companies not associated with U.G.I. He is a member of American Gas Association, Controllers Institute of America, American Institute of Management, Pennsylvania Gas Association, Pennsylvania Electric Association, and has been a member of many industry and association committees.

Mr. Smoker has been with the company since 1930, when he started as research chemist. He has been successively manager of the development laboratory, assistant research director, engineer and, since 1950, operating manager with general supervision of production, distribution and sales of gas and electricity for all U.G.I. properties. He is a member of the American Gas Association, American Chemical Society, American Institute of Chemical Engineers and Pennsylvania Gas Association.

Mr. Williams started work with U.G.I. in 1927 as a traveling auditor, later became manager of corporate tax matters, general auditor and assistant comptroller. He has been active on many committees of industry associations, including American Gas Association.

Mr. Hofft was elected vice-president of U.G.I. in 1929, and since 1943 has been in charge of all operations. Prior to his U.G.I. service he had been employed by other utility companies in Indiana, Illinois, New York and Pennsylvania. He, too, is a member of A. G. A.

Hagerman retires as Charleston board chairman

OLIVER S. HAGERMAN, chairman of the board, Charleston Group Companies, The Columbia Gas System, retired on August 31. He will remain a director of the companies.

After graduating from the University of Minnesota, Mr. Hagerman served the St. Paul Gas Light Company and the American Light and Traction Co., Chicago. He was named president of the Atlantic Seaboard Corporation in 1937 and became vice-president and general manager of the Charleston Group Companies in 1946. He was appointed president and general manager in 1947 and chairman of the board in 1951. Under Mr. Hagerman's leadership the companies experienced the largest growth in their history. The group is composed of the Amere Gas Utilities Co., Atlantic Seaboard Corp., Big Marsh Oil Co., Central Kentucky Natural Gas Co., United Fuel Gas Co., Virginia Gas Distribution Corp. and Virginia Gas Transmission Corporation.

For years, Mr. Hagerman has been a leading figure in American Gas Association activities. In 1948, he was named a director, and is currently serving as a member of the Advisory Council. He is a past-chairman of the former A. G. A. Technical Section as well as its Pipe Joint and Distribution Committees. In 1952, he served as chairman of Convention Time and Place Committee.

Mr. Hagerman is a member and former official of the West Virginia Oil and Natural Gas Association, a member of the American Society of Mechanical Engineers and of the Society of Gas Lighting.

Oliver S. Hagerman

Batchelder accepts consulting position at Battelle

HOWARD R. BATCHELDER has joined the staff of Battelle Memorial Institute, Columbus, Ohio, as an associate consulting chemist.

In his new position, Mr. Batchelder will coordinate research devoted to non-fuel uses of coal and chemicals derived from coal. The appointment was made as a result of Battelle's expanding activity in this specialized field of coal research.

Prior to joining Battelle, Mr. Batchelder was in charge of gasification planning at the United States Bureau of Mines', fuels demonstration plan, Louisiana, Missouri. During his five-year tenure there, he also served as consultant on gasification to the chief of the division of fuels technology for the Bureau's Region VIII. Mr. Batchelder was employed as technical director by the Institute of Gas Technology, Chicago, before joining the Bureau of Mines. Earlier positions were with the United Gas Improvement Co., Philadelphia, and the Standard Oil Co. of Indiana, Whiting, Indiana.

Mr. Batchelder is the holder of 12 United States patents covering processes for recovering and refining products from high-temperature pyrolysis of petroleum. He received both a B.S. and M.S. degree in chemistry from Massachusetts Institute of Technology. He is a member of the American Gas Association, the American Chemical Society, the American Institute of Chemical Engineers, and Sigma Xi, professional research honorary society.

H. R. Batchelder

Equitable promotes Brown

JOHN T. BROWN has been elected vice-president and general counsel of Equitable Gas Co., Pittsburgh.

He is a graduate of the University of Pittsburgh, and of its law school in 1938. He was appointed attorney for Equitable Gas Co. in 1950 and general counsel in 1951.

J. T. Brown

Mr. Brown is one of the 100 young Pittsburgh men selected recently as "Outstanding Leaders of Tomorrow" in a contest sponsored by the Pittsburgh Chamber of Commerce and *Time* Magazine.

Name Horsfield assistant vice-president

SAMUEL A. W. HORSFIELD has been elected assistant vice-president in charge of gas operations by the Long Island Lighting Co., Mineola, New York. In 1948, Mr. Horsfield was awarded the American Gas Association's Beal Medal for his paper "Catalytic Cracking as a Means of Peak Load Shaving," which was selected as the year's best technical paper.

Mr. Horsfield came to the United States in 1925 from Wales, where he had received technical education at the South Wales School of Mines.

Before joining the Long Island Lighting Co. in 1927, he served Dwight P. Robinson & Co. and E. L. Phillips & Co. as an engineer.

His first position with the utility was that of plant superintendent, and through the years he has served as staff engineer, gas production manager and assistant gas operating manager. When his latest promotion was announced, Mr. Horsfield was the company's gas operating manager.

S. A. W. Horsfield

Mr. Horsfield is an active member of the A. G. A. Operating Section, and next year will be vice-chairman of the Manufactured Gas Production Committee. At present, he serves as a member of this committee as well as its Subcommittees on Use and Handling of LP-gases and Safety. Mr. Horsfield is a New York State Engineer.

Zwanzig heads A.G.A. PAR Program, Parson directs statistics

AMERICAN GAS Association has announced that Otto E. Zwanzig, formerly director of the Bureau of Statistics, has been appointed full-time director of the Association's Promotion, Advertising and Research (PAR) Program and secretary of the PAR Committee.

In his newly created post, Mr. Zwanzig is responsible for the administration of the promotion, advertising and research activities financed by PAR funds which currently amount to approximately two million dollars per year. Appointment of a full-time A. G. A. staff member to guide the PAR Program was directed by the Board of Directors in accordance with recommendations made by the PAR Reviewing Committee.

Previously, PAR activities were directed on a part-time basis by John W. West, Jr., assistant managing director of the Association. Mr. West now assumes direct responsibility under H. Carl Wolf, managing director, for all Headquarters activities other than the PAR Program.

Daniel Parson has been advanced from senior statistician to director of the Bureau of Statistics.

Mr. Zwanzig was graduated from Massachusetts Institute of Technology in 1936 with a master of science degree in electrical engineering. He was engaged in industrial power sales and analysis for the Public Service Electric & Gas Co., Newark, N. J. until 1942. For several years, he did non-utility engineering work including naval construction and industrial plant conversions for war production. He was associated with Dr. H. B. Dorau, New York University, on several utility consulting projects, including preparation of the industry's case in FPC Docket G580. Before joining A. G. A., he was an instructor in the University's Department of Public Utilities and and Real Estate, School of Commerce.

Mr. Zwanzig joined A. G. A. as senior statistician in 1948, and during the same year was appointed director of the Bureau of Statistics. His special duties have included a study on the economics of househeating, preparation of a gas industry supply and requirements forecast, contacts with the staffs of FPC, SEC and the Census Bureau, as a member of the Public Utility Committee of the Advisory Council on Federal Reports, and as a consultant with the Gas Division of PAD. Recently he has been in staff charge of the Gas Industry Development Program.

Mr. Parson joined the Association staff in 1944 and in 1948 was named senior statistician with responsibility for the A. G. A. statistical program. He is a graduate of City College of New York and holds a master's degree in accounting and management from New York University.

Otto E. Zwanzig

Daniel Parson

Before joining A. G. A., he was employed by a federal agency, the Board of Investigation and Research, where he made special studies in the fields of transportation and taxation. Mr. Parson has served the Association as secretary of the A. G. A. Subcommittee on Statistics. He also has directed the tabulation and presentation of material in *Gas Facts*, A. G. A. *Gas Househeating Surveys* and other statistical bulletins.

South Jersey utility announces executive changes

EARL SMITH, president of the South Jersey Gas Co. and a director of American Gas Association, has announced his retirement as president of the Atlantic City utility. Mr. Smith, who will remain with the company as a member of the board of directors, is succeeded in the presidency by Theodore H. Kendall, former executive vice-president. Albert W. Conover, president of the Kentucky West Virginia Gas Co. and the Equitable Gas System, and another member of the A. G. A. board of directors, will serve as chairman of the New Jersey utility's board of directors.

Mr. Smith began his career in the gas industry in 1911 at Lansing, Michigan. He went to Atlantic City in 1920 and was elected president of South Jersey Gas Co. in 1948. In addition to his position as a director of the American Gas Association, Mr. Smith serves as a director of the New Jersey Gas Association and vice-president of the New Jersey Utilities Association.

Earl Smith

T. H. Kendall

A. W. Conover

Mr. Kendall has served as executive vice-president and a member of the board of directors of South Jersey Gas Co. since October 24, 1952. Prior to that time he was associated with the Equitable Gas Co., Pittsburgh, for more than 28 years.

A graduate of Colgate University, Mr. Kendall has been a director of the Engineering Society of Western Pennsylvania. He is a member of the American Gas Association and Western Pennsylvania Natural Gas Association. He served last year on the A. G. A. Operating Section's Distribution Committee.

Mr. Conover has served as a member of the board of directors of South Jersey Gas Co. since 1950. He is also chairman of the executive committee of the North Shore Gas Co., Waukegan, Illinois.

In addition to his membership on the A. G. A. Board of Directors, Mr. Conover serves in the same capacity in the Pennsylvania Natural Gas Men's Association. He is also a member of the Western Engineers' Society and a life member of the American Coke and Chemicals Institute, Washington, D. C.

Jones and Watson assume top Cities Service positions

W. ALTON JONES has been elected chairman of the board, and Burl S. Watson is now president of Cities Service Co., New York City.

Mr. Jones will serve as the company's chief executive officer in charge of the supervision and direction of its affairs. As chairman, he will turn over to Mr. Watson certain administrative duties and devote increasing attention to the long-range expansion and development of the Cities Service oil and natural gas interests, in both the domestic and foreign fields.

Mr. Watson, formerly executive vice-president, has been associated with Cities Service for 36 years, joining it as a cadet engineer in 1917 after graduation from the University of Alabama. He is an officer and director of numerous Cities Service companies whose interests range from lower-Manhattan real estate to oil operations, both domestic and foreign; natural gas, pipelines, tanker operation, refining and manufacturing, petrochemicals and other phases of the oil and natural gas industries. For many years he has been active in oil industry affairs as a member of the board of directors of the American Petroleum Institute, and is a member of the American Institute of Mining and Metallurgical Engineers and of the American Gas Association.

Mr. Watson has been intimately associated, during the past quarter century, with the growth and development of the Cities Service oil and natural gas operations, and their integration into a single system operating in all states east of the Rocky Mountains, in Canada and in Mexico.

Mr. Jones became president of Cities Service in 1940, succeeding the late Henry L. Doherty. During his presidency, the company disposed of its electric and natural gas utility properties, and developed and expanded its oil and natural gas business.

W. Alton Jones

Burl S. Watson

Weigele retires

THEODORE W. WEIGELE, vice president and engineer of Michigan Consolidated Gas Co. and its affiliate, American Natural Gas Service Co., retired on July 1st.

Mr. Weigele had served the American Natural Gas Co. system, which also includes Michigan-Wisconsin Pipe Line Co., Milwaukee Gas Light Co., and Milwaukee Solvay Coke Co., for 39 years.

He has been Michigan Consolidated's gas engineer since 1944, making studies covering costs of operation and construction, gas market requirements, available gas supplies and the engineering features of a 1500-mile pipeline completed in 1949 from Texas to Michigan and Wisconsin by the Michigan-Wisconsin Pipe Line Company.

He was made a vice-president of Michigan Consolidated in 1948 and vice-president and engineer of American Natural Gas Service Co. in 1950.

Mr. Weigele is a member of American Gas Association.

Cates and Hammond promoted in California

A. B. CATES, JR., has been named assistant controller and H. C. Hammond has been appointed manager of the accounting department, Southern California Gas Co., Los Angeles.

Mr. Cates, who was formerly general auditor, and Mr. Hammond, who served previously as administrative assistant, assumed their new duties on July 1.

Mr. Cates joined the Southern California Gas Co. in July 1927, became a ledger clerk in the auditing department in October, 1927, and served in various capacities of that department until he was appointed general auditor in 1940.

During his career, he has been very active in American Gas Association and Pacific Coast Gas Association activities. Mr. Cates is now a member of the Managing Committee of the A. G. A. Accounting Section. He is also an active member of the PCGA Accounting Section and served as chairman of the section in 1948.

A. B. Cates, Jr.

H. C. Hammond

Mr. Hammond attended San Bernardino Junior College and Southwestern University in California. He joined the Southern California Gas Co. in 1937, and was appointed administrative assistant to A. B. Cates, Jr., in September, 1951. He is a member of American Gas Association.

Columbia Gas System promotes two engineers

WILBUR T. SHINHOLSER, vice-president and chief engineer of the Ohio Fuel Gas Co., Columbus, assumed duties as vice-president of the Columbia Gas System Service Corp. on July 1. Mr. Shinholser will serve the corporation in Washington, where he will assist in the coordination of activities of all Columbia Gas System companies in regulatory matters before the Federal Power Commission.

Paul W. Rogers, assistant chief engineer, succeeds Mr. Shinholser as chief engineer of the Columbus utility.

A 1917 graduate of Alabama Polytechnic Institute, Mr. Shinholser joined Ohio Fuel in 1929. He had served 12 years with Cities Service Co. in various operating positions pertaining to the production and distribution of manufactured and natural gas.

He was named assistant chief engineer of Ohio Fuel in 1937, chief engineer in 1943, was elected a director in 1949, and vice-president in 1950.

Mr. Shinholser's principal projects have involved additions to and relocations of transmission lines and compressor stations, as well as the development of a system for underground storage.

He has served often as Ohio Fuel's witness in matters before the Public Utilities Commission of Ohio and before the Federal Power Commission. These cases involved issuance of certificates for new transmission and storage facilities and applications for increased rates.

A member of American Gas Association, Mr. Shinholser is active in the program of the A.G.A. Laboratories, Cleveland, and in the research work of the Institute of Gas Technology, Chicago.

Mr. Rogers has been assistant chief engineer since February 1952. He joined Ohio Fuel in 1933, and served in the gas measurement and pipelines departments as engineer.

During World War II, he attained the rank of lieutenant colonel in the U.S. Army, and returned to Ohio Fuel in 1946. In 1947, he was named superintendent of motor transport, and also was given responsibility for the shops and warehouses.

W. T. Shinholser

Paul W. Rogers

Mr. Rogers is a member of the Society of Automotive Engineers, and is past-chairman of the American Gas Association's Motor Vehicles Committee.

Natural gas expert slated to join A.G.A. staff

CURTIS MORRIS, vice-president of Transcontinental Gas Pipe Line Corp., Houston, will join the American Gas Association executive staff on October 1.

Initially, Mr. Morris will study A.G.A.'s facilities and services devoted to natural gas production and transmission. He will recommend ways in which the Association can be of greatest usefulness to producing, transmission and distributing natural gas companies.

The appointment of Mr. Morris reflects the Association's desire to serve and keep abreast of the rapidly growing natural gas industry. Mr. Morris, with his Southwestern background and his knowledge and experience in the production and transmission of natural gas, will be an asset to the A. G. A. program.

Mr. Morris holds degrees from Ohio University and the University of Colorado. He joined Transcontinental in 1949, and has been in charge of legislative, tax and public relations matters for the company. Before joining Transcontinental, he was engaged in tax and legislative work in Texas. He also represented Texas public and private agencies in Washington in the Tidelands case.

Curtis Morris

Mr. Morris is a member of the A. G. A. PAR and Public Information Committees.

Rowden fills sales post

THAD W. ROWDEN, JR. has been made general sales manager for Arkansas Western Gas Co., Fayetteville. Mr. Rowden will head a reorganized sales department under which will come the sale of all domestic, commercial, and industrial gas in the areas served by Arkansas Western.

Mr. Rowden is familiar with all sales phases of natural gas, having served in various positions with Arkansas Western for the past 20 years. He was employed by the company as an installation engineer shortly after the forming of the company. After serving in this capacity and having worked with the sales of natural gas, he was made sales manager.

During Mr. Rowden's years with Arkansas Western he has become very active in the Southern Gas Association.

He is a graduate of the University of Arkansas.

Thad Rowden

New Orlean selects two vice-presidents

NEW ORLEANS PUBLIC Service Inc. has elected as vice-presidents of the company Clayton L. Nairne and Lionel J. Cucullu.

Mr. Nairne, a graduate of Tulane University's College of Engineering, was first employed by Public Service as a student engineer during 1924 and 1925. In 1928, after three years' experience as an engineer with Florida Power & Light Co., he rejoined Public Service.

In 1943 he was named assistant to the vice-president in charge of operations. In 1951 he became general superintendent of operations, with responsibility for the operations of the electric, gas, and transit departments.

Mr. Nairne is a member of a number of trade, professional and civic organizations, including American Gas Association, Louisiana Engineering Society and Southern Gas Association.

Mr. Cucullu received his education at St. Aloysius College and Louisiana State University, from which he received an engineering degree in 1927. He joined the company in 1930, following three years of experience with other organizations. His first assignment with the company was that of sales engineer. He became chief engineer in 1951.

Mr. Cucullu has served as president of the Louisiana Engineering Society. He is a member of American Gas Association, Louisiana Engineering Society, and the American Society of Mechanical Engineers.

Clayton L. Nairne

Lionel J. Cucullu

Moseley is superintendent

HARRY R. MOSELEY has been appointed Gulf Coast division superintendent for Texas Eastern Production Corp., Houston. Mr. Moseley, who joined Texas Eastern Production Corp. in 1951 as district petroleum engineer in Shreveport, was transferred to Houston in 1952.

Before joining Texas Eastern Production Corp. Mr. Moseley was associated with The California Co. as a petroleum engineer. He was graduated with a bachelor of science degree in petroleum engineering from the Louisiana State University, and served in the Army during World War II.

A. G. A. editor returns from service in Air Force

JAC A. CUSHMAN has returned to the editorship of the American Gas Association MONTHLY following two years of active duty in the U.S. Air Force. He succeeds Laurance C. Messick who held the position of editor during his absence.

Mr. Cushman joined A. G. A. in February 1947 after serving as assistant financial editor of *The Hartford Courant*, widely known morning newspaper in Hartford, Connecticut. Working closely with gas industry members and the Association staff, he won recognition of the A. G. A. MONTHLY as one of the foremost association or fraternal magazines in the United States and Canada. He was recalled to active duty in July 1951.

A graduate of Trinity College, Hartford, Conn., he served in the Air Force for three and a half years during World War II. His latest tour was spent as a captain in the Air Defense Command, in charge of training and character guidance activities at a base in New Jersey.

Jac A. Cushman

Appoint Griffith director

CECIL V. GRIFFITH, treasurer of Portland (Ore.) Gas & Coke Co., has been elected a director of the company. He succeeds John A. Laing, who died recently and who had served as a director since 1918.

In addition to his duties as treasurer, Mr. Griffith is controller and assistant secretary of the company. He joined the utility in 1926, was named assistant treasurer in 1948, and was elected treasurer in 1950. He was appointed controller in 1951.

Mr. Griffith is a member of American Gas Association, and is past-president of the Portland Chapter, National Association of Cost Accountants.

Buck heads Bryant Industrial Products

FORMATION OF THE BRYANT Industrial Products Corp. and its purchase of the principal assets and production facilities of the Bryant Industrial Div., Affiliated Gas Equipment, Inc., has been announced. Robert M. Buck is president of the new Cleveland enterprise. Other officers are Lawrence R. Foote, vice-president, and John Sellors, Jr., secretary-treasurer.

The new firm will specialize in the design, production and marketing of industrial gas combustion equipment. All key personnel of the former Affiliated Gas Equipment division will join the new organization.

"Plans for the immediate future include the expansion of present product lines and the development and introduction of several new lines, as well as broadened engineering and sales activities," Mr. Buck said.

Lawrence R. Foote

Robert M. Buck

Colorado promotes

THE PUBLIC SERVICE CO. of Colorado has named a new secretary and a new treasurer of the company.

W. D. Virtue, vice-president and secretary, was named treasurer. He fills the vacancy created by the retirement of D. G. Guiney, who left after 45 years of service with the company. H. A. Mitchell, assistant secretary and assistant treasurer was elected secretary to succeed Mr. Virtue. The elections became effective on September 1.

In addition to their new responsibilities, Mr. Virtue remains as vice-president and Mr. Mitchell will continue as assistant treasurer.

All three men are members of the American Gas Association.

Vail elected Commonwealth official

DONALD B. VAIL has been elected assistant vice-president of Commonwealth Services Inc., New York.

Mr. Vail was formerly a vice-president of Irving Trust Co. and joined the Commonwealth organization in 1950. He received his law degree at Harvard. Since that time, he has been engaged in financial and banking fields, including work related to public utilities.

Ohio PUC names

THE PUBLIC UTILITIES Commission of Ohio has appointed a new secretary, Basil J. Boritzki, who has served as the commission's attorney-examiner since October, 1952.

Edward E. Knaub has been named departmental supervisor, in addition to his duties as chief accountant, and has been relieved of his responsibilities as acting secretary.

Mr. Boritzki is a graduate of Southwest Missouri State College, and holds a law degree from Ohio State University. Before joining the Ohio commission, he practiced law for a short time.

Mr. Knaub joined the commission in 1944 as an accountant, and was named chief accountant that same year.

Boyd made engineer at Texas Eastern

FRANK A. BOYD has been appointed petroleum engineer in charge of the Texas Eastern Transmission Corporation's Pittsburgh, Pennsylvania, office.

His previous experience includes that of consulting engineer-geologist and chief geologist, The Manufacturers Light and Heat Company. He holds degrees from Pennsylvania State College and Carnegie Institute of Technology.

Mr. Boyd is currently serving on the Underground Storage Committee, American Gas Association. He is also a member of the American Petroleum Institute, American Association of Petroleum Geologists and Pennsylvania Natural Gas Men's Association.

Murdock retires as superintendent in Joliet

WILLIS J. MURDOCK retired as superintendent of the Public Service Co., Joliet, Ill., on June 1.

A veteran of nearly 39 years in the public utility field, Mr. Murdock spent his entire career in Joliet. He began work in 1914 for the Western United Gas & Electric Co., and five years later was made superintendent of the Lockport gas plant. In 1927 he was promoted to district gas manager, and served in that capacity until 1951 when he was named district superintendent. At that time, following the merger of Western United into Public Service, he was placed in charge of electric and gas commercial activities in the area.

Plata advances in Staten Island utility

RICHARD A. PLATA has been named manager of the New York and Richmond Gas Company's new house heating and commercial department.

The Staten Island utility has organized the department to coordinate house heating, industrial, commercial and public relations activities.

Mr. Plata, a graduate of New York University, joined New York and Richmond in 1945. Since then, he has served as home planning manager, assistant sales manager and assistant new business manager. From 1950 to 1952, he served with the U. S. Army Reserves in Korea.

Mr. Plata is a member of American Gas Association and this year serves on the New Freedom Gas Kitchen Committee.

Illinois utility promotes sales executives

THE PEOPLES Gas Light and Coke Co., Chicago, has announced three sales personnel promotions. Bernard H. Wittman has been named assistant to F. X. Mettenet, vice-president in charge of sales. Mr. Wittman is succeeded in his former position of domestic sales manager by Roy Munroe, while Robert E. Spangler succeeds Mr. Munroe as South Sales Section director.

A veteran with 33 years of sales experience with the Chicago utility, Mr. Wittman joined the company in 1920 as a junior sales clerk. During his long career, he has served as salesman, sales engineer, sales supervisor, sectional sales director and manager of domestic sales. He is an active member of A. G. A., and this year serves on the Residential Gas Section's Managing Committee and Mid-West Regional Sales Council.

B. H. Wittman

Mr. Munroe was employed by Peoples Gas since 1933, graduated from Colorado School of Mines. He is an A. G. A. member.

Mr. Spangler is a graduate of St. Mary's College, Kansas. He served with Oklahoma Natural Gas Company before joining the Chicago utility in 1933.

Cummins Nominated

H. C. CUMMINS, first vice-president of Northern States Power Co., Minneapolis, has been nominated as a director of American Gas Association.

H. C. Cummins

Mr. Cummins' picture appeared in the July-August A. G. A. MONTHLY article on 1953-54 nominations of officers, directors and section chairmen. Through an oversight, however, his name was omitted from the listing of nominees.

Stehman retires from Brooklyn Borough utility

FREDERICK STEHMAN, vice-president of Brooklyn Borough Gas Company which supplies the ocean-front area of Brooklyn, N. Y., retired from active duty in August, after nearly 40 years of service.

Mr. Stehman joined the utility's staff in 1913 as an engineer. At that time, the city's requirements were for 22 candle power since lighting was the principal use. The company's annual production in 1913 of 370 million cubic feet of gas would have been consumed in about a month in 1953.

Until the conversion to natural gas in 1951, Brooklyn Borough Gas Company had manufactured water gas.

Mr. Stehman continues as a member of the board of directors.

Humphreys to direct ASHVE research activities

CLARK M. HUMPHREYS has been named acting director of research, American Society of Heating and Ventilating Engineers.

Since 1945 Mr. Humphreys has served as senior engineer and recently has supervised the work on the human calorimeter and the construction of environment and odor rooms.

Mr. Humphreys attended Ohio State University, from which he received his B.M.E. in 1925. After six years in the Office of the State Architect and Engineer, Columbus, he joined the teaching staff of Carnegie Institute of Technology, Pittsburgh. In that year, 1931, he became a member of ASHVE and served on the council from 1936-38. Mr. Humphreys was chairman of the Guide Publication Committee in 1942, and has served on many of the research technical advisory committees.

Herr and Clarke form new scrap sales service

G. BARRETT HERR and Walter J. Clarke have announced the formation of their new partnership service organization, the Bama Sales Co., 1943 McNary Blvd., Pittsburgh. The new company will operate as an industrial clearing house for every type of scrap and obsolete material.

Mr. Herr, who was associated with The Peoples Natural Gas Co., Pittsburgh, for over 29 years, completed a 13-month term of service with the Petroleum Administration for Defense recently.

He has been active in the American Gas Association, and has served the Accounting Section's Purchasing and Stores Committee for nine years. During that time, he served for three years as committee chairman and as co-chairman, Standard Packaging Subcommittee.

Mr. Clarke, who has been in the scrap disposal industry since 1936, has had experience with the United States Government, the James Flett Organization, Chicago, and recently, as a private agent handling disposal problems of several utility companies.

(Additional personal items appear on page 55 of the September A. G. A. MONTHLY*)*

OBITUARY

James Edward Colvin

former superintendent of the meter department, Central Indiana Gas Co., Muncie, died at his home on June 17 at the age of 85.

Mr. Colvin, who joined the gas company 63 years ago, had devoted his entire career to the progress of the industry in his locality.

Mr. Colvin is survived by his wife, Gertrude; a son, Robert; a daughter, Edna; a grandson and great grandson.

T. B. J. Merkt

Kings County district manager, The Brooklyn Union Gas Co., died on August 5 at the age of 58.

Mr. Merkt was a graduate of Brooklyn Polytechnic Institute and a member of American Gas Association.

He is survived by his wife, Mrs. Agnes Merkt and a daughter, Mrs. Arthur Ditton.

Frank J. Haas

former vice-president and general manager of Southern Indiana Gas and Electric Co., died at his home in Evansville, Ind., on August 14. Mr. Haas relinquished his executive duties with the company in 1934 and since that time has been engaged in civic activities.

Gaylord B. Buck

prominent Denver resident and executive of the Public Service Company of Colorado died last month after a brief illness.

Mr. Buck was vice-president and general commercial manager of Public Service Company. He was known in Denver and throughout the state as a dynamic personality who had much to do with pioneering and stimulating the extension of electric and natural gas service to Colorado communities. He was a member of American Gas Association.

Mr. Buck came to Public Service Company in 1924 as sales manager, and became general commercial manager in 1928. He was elected to the board of directors in 1932. He became a vice-president of the company in 1937 and vice-president and general commercial manager in 1943.

A.G.A. Convention

(Continued from page 8)

tion of Awards of Accounting Merit, the group will hear a talk on the "1953 Input-Output Developments Related to Electronic Computers", by John H. W. Roper, supervisor of customer accounts, Washington Gas Light Co., Washington, D. C. He will be assisted by Dr. Herbert Mitchell Jr., director of applications and Dr. Grace Murray Hopper, head of programming research, both of Remington Rand, Inc.

"Customer Relations Training by Film and Manual for the Gas Industry" will be presented by Beach J. McMillen, assistant manager, The Cincinnati Gas & Electric Co., Cincinnati, Ohio. Final talk of the session will be on "The Economics of Discounts and Security Deposits" by L. J. Rauh, Consolidated Gas Electric Light & Power Co. of Baltimore, Maryland.

At its Tuesday session, the Accounting Section will ponder briefly on "What's Cooking in the Accounting Section", presided over by F. H. Crissman, treasurer, The Columbia Gas System, Inc., and coordinator of the Section's General Activities Group. Speakers have yet to be announced to discuss "Public Relations and Customer Contacts", and "Economics, Costs and Depreciation". A report of the Nominating Committee, headed by Ralph F. McGlone, commercial manager, The East Ohio Gas Co., Cleveland, and election of officers will conclude the session.

An organization luncheon meeting will be sponsored by the General Management Section, presided over by its chairman, Eskil I. Bjork, president, The Peoples Gas Light & Coke Co., Chicago. The luncheon, to be held in the Hotel Statler ballroom at 12:15 P.M. on Tuesday, will be attended by representatives of committees on Accident Prevention, Comparison of Competitive Services, Corporate Secretaries, Economics, Insurance, Natural Gas Supplymen's Fund, Personnel, Public Information, and Rates. This will be the first meeting of the new section which was organized last March by authority of the new Constitution. Following this meeting, an open house session will be devoted by the Rate Committee to general discussion of latest developments in rate matters, at 2 P.M. in Parlor A, Hotel Statler.

The traditionally popular Home Service Breakfast will be held this year at 8 A.M. Tuesday in the Gold Room of Hotel Jefferson. A similarly outstanding Home Service event will be the Round Table at 2 P.M. Tuesday in Assembly Hall 3 of Kiel Auditorium.

At 12:30 P.M., the Industrial and Commercial Gas Section will hold its luncheon in the Ivory Room of the Hotel Jefferson. Terry Hart, Section chairman and general sales manager, Nashville Gas Co., Nashville, Tenn., will preside. Main luncheon speaker will be Earl H. Eacker, first vice-president of A. G. A. and president, Boston Consolidated Gas Co., Boston, Massachusetts.

Annual meeting of the Industrial and Commercial Gas Section will be held at 2 P.M., opening with the chairman's report by Mr. Hart. "Industrial Gas at the Crossroads" will be reviewed by Frank H. Adams, president, Surface Combustion Corp., Toledo, Ohio. Gordon M. Jones, manager of sales and public relations, The United Gas Improvement Co., Philadelphia, Pa., will explain to the audience "We Have What It Takes". "Where We Stand on Air Conditioning" will be the title of another feature presentation. Election of officers will follow a report of the Nominating Committee headed by Ronald A. Malony, executive vice-president, The Bridgeport Gas Light Co., Bridgeport, Connecticut.

Operating sessions

Operating Section sessions will be held at 2 P.M., from Monday through Wednesday, in Assembly Hall 4 of Kiel Auditorium. There will be a report by the Section chairman, Channing W. Wilson, research chemist, Consolidated Gas Electric Light and Power Co. of Baltimore, Maryland. Then the Section Awards of Merit will be distributed. "Progress in Large Volume Measurement" will be the topic of F. M. Partridge, gas measurement engineer, Southern California Gas Co., Los Angeles, California. Final event on Monday will be a panel discussion of "Overpressure Protection", comprising subjects such as monitor regulators, shut-off devices and relief devices. W. P. Dick, vice-president, United Fuel Gas Co., Charleston, W. Va., will be chairman.

Opening Tuesday's session will be D. E. Noble, vice-president in charge of communications and electronics division, Motorola, Inc., Chicago, who will discuss, "Electronics—A Tool for Communications and Control in the Gas Industry". "Leasing of Automotive and Mobile Equipment", will be treated by R. O. Babcock, chairman, Automotive and Mobile Equipment Committee, and manager, transportation department, Consolidated Edison Co. of New York, Inc. Aspects of pipeline maintenance will also be reviewed. Discussions will include "Safe Ways to Perform Pipeline Repairs" by W. H. Krammes, superintendent of central gas supply, Southern California Gas Co., Los Angeles, and a demonstration of "Hazards of Static Electricity" by G. M. Kintz, chief, Accident Prevention and Health Division, and H. F. Brown of the same division, both from U. S. Bureau of Mines in Dallas, Texas.

At the final business session of the Convention on Wednesday, the Operating Section will hear H. L. Hamilton, A. V. Smith Engineering Co., Ardmore, Pa., speak on "Coordination of Corrosion Control". "The Acquisition of Underground Storage Rights" will be the topic of Charles W. Studt, chairman, A. G. A. Subcommittee on Underground Storage, and manager of production operations, Union Gas System, Inc., Independence, Kansas.

"Gas Turbine Driven Centrifugal Compressors for Gas Transmission" will be discussed by John F. Eichelmann of El Paso Natural Gas Co., El Paso, Texas. A panel discussion will concentrate on "Problems of Smaller Gas Companies". There will also be a report of the Nominating Committee headed by H. Bruce Andersen, vice-president in charge of distribution, Philadelphia Gas Works, Division of U.G.I., Philadelphia. Election of officers will follow.

After-business hours will be devoted to lighter pursuits. Arrangements for general recreation have been made by the Convention Entertainment Committee headed by Robert D. Lewis, advertising manager, Laclede Gas Co. of St. Louis.

Crowning point of the convention will be the traditional reception, at 9 P.M. Tuesday in the Gold Room of Hotel Jefferson, tendered to A. G. A. President Frank C. Smith, officers of A. G. A. and GAMA, and their wives. A scintillating stage show of stars will be presented, followed by dancing to music of a leading local orchestra.

Convention delegates are invited to attend a "Parade of Kitchens" on the sales and home service floors of the Laclede Gas Company. This exhibit of nine colorful kitchens, featured by leading women's and shelter magazines, will

be shown during October and November in cooperation with the A. G. A. New Freedom Gas Kitchen Bureau. A second "Heart Saver Kitchen" and sundry kitchen-laundry combinations are highlighted. In addition, there will be an illustrated kitchen parade in an exclusive 64-page rotogravure section of the "St. Louis Post-Dispatch" on Sunday, October 25, the day before the Convention opens.

Preliminary information from St. Louis indicates a large number of advance registrations for this thirty-fifth annual convention. Registration fee is $15 for each person, with no charge for ladies who are not company employees. In St. Louis, delegates will be able to register Sunday afternoon at Hotel Jefferson and in the Kiel Auditorium during other days.

Adequate accommodations will be available, although delegates may not have a choice of hotel rooms. Advance reservation requests should be sent to the Hotels Convention Reservation Bureau, American Gas Association, 911 Locust Street, St. Louis 1, Missouri. Requests should state type of room desired, arrival and departure dates and times. Space will be assigned in the order that requests are received.

Mrs. America

(Continued from page 13)

tests. One section of the portfolio will be devoted to ideas on how gas companies can cooperate with supermarkets to get the most value from the contest. In addition to national and local radio and television appearances, it is planned to have each state winner presented to the governor.

Distributors of *Better Living* will soon receive a four-page folder from the magazine's store relations department that spells out the promotional opportunities for each supermarket to stimulate store traffic and prestige. Subsequently, those that plan to participate will be sent a promotion kit that provides:

(1) Official contest entry box

(2) In-store display material, including a giant window display poster to identify each supermarket as headquarters for "Mrs. America" contest entries

(3) Mats for use in local newspaper advertising

(4) Exploitation program suggesting ways in which supermarkets can build local excitement as well as tie-in with American Gas Association activities.

Judges with a national reputation in the homemaking field will select the final 1954 winner. All contestants in the finals will be judged on cooking, meal-planning, laundering, and other household activities in their own assigned homes at Ellinor Village, and not in groups on a public stage or auditorium. Every effort will be made to duplicate typical home conditions, and the contestants will be judged individually as they work. It is emphasized that the winner will be selected principally for her ability and qualities as a homemaker.

This unusual event is expected to attract wide national coverage in newspapers, theatre newsreels, and in television and radio appearances. Supporting the gas industry's backing of the contest will be various manufacturers of gas appliances who will participate actively and join the nationwide promotional efforts.

Straws in the wind

(Continued from page 20)

Past, present and future

▶ Ten years ago, *Time* recorded the divorce suit in Chicago of Mrs. Alice Mischal on the ground that her husband refused to let her cook with gas. Naturally she won the divorce.

In 1943, natural gas sales totaled 20,324.6 million therms. By the end of 1952, the total was nearly two-and-one-half times that figure—49,293.2 million therms. *Gas Facts* shows that natural gas sales for the 12 months ended June 30, 1953 were 10.5 percent higher than in the preceding 12-month period (51,552 million therms compared to 46,656 million therms).

The fact that so many of yesterday's gas ranges are still on the lines has enabled the electric industry to make heavy inroads on the residential gas cooking load. It's significant that more than half of the 30 million gas ranges used in the U.S. are more than five years old and nearly 13 million are more than ten years old. Five million gas ranges are from 15 to 40 years old.

Today's gas ranges are scientifically insulated to keep heat inside the ovens and broiler. Top burners are designed to keep the heat under the pot instead of all over the kitchen. The very newest gas ranges feature a broad selection of broilers.

GAMA notes that the gas range of the future may be a jet or flash-tube-fired type for instant lighting. "Plug-In" gas appliances are a possibility for the 1963 kitchen. Hollowed nozzles at the end of flexible metallic hoses would enable owners to plug their gas appliances into gas outlets strategically placed throughout the kitchen. Another concept for the future is that each individual gas range will be tailored to the height of the woman who uses it.

Safer where you work

▶ In recent years, more than one-third of the fatal accidents experienced by employees in the gas industry have been caused by automobiles. Most of the others were not from asphyxiation or inhalation of gas, but from commonplace causes such as poor housekeeping, disregard for safe practices and other human failures.

Accidents to gas industry employees off-the-job are roughly five times as numerous as on-the-job.

Since 1946, the popular pamphlet "Home Service—The Road to Opportunity" has been distributed widely at career conferences and other groups of young people. Last month, the A. G. A. Home Service Committee (headed by Chairman Mary Huck of The Ohio Fuel Gas Company) published "Home Service—Opportunities Unlimited," a revised career folder for girls of high school age. Everything is there—the qualifications for the job and the rewards that the candidate will reap. The new folder is priced at five cents and is direct and attractive. Order from A. G. A. Home Service Committee.

Keep America healthy

▶ Did you know that the gas industry is playing an important role in guarding America's health?

In many states, sanitation departments are using the A. G. A. booklet "Enough Hot Water—Hot Enough" as their "bible" in patterning hot water systems to meet minimum requirements of sanitation in dish washing. The booklet is also in demand by Federal Government bureaus.

Cheap at any price

▶ What will a penny's worth of gas do?

At the rate of one dollar per Mcf of natural gas, one penny will toast 277 slices of bread in a restaurant type conveyor toaster. It will cook seven pounds of French fried potatoes in one of the new high-speed deep fat fryers. Sales and advertising men make note!

Industrial relations

(Continued from page 14)

business machines and electric typewriters. For example, pay checks and ledger entries can be printed at the same time. Contact Standard Register Company, Dayton 1, Ohio.

Xerography—Electronic photostating is an oversimplified description of a new, fast way to duplicate letters, documents, records, etc. It avoids messy chemicals and inks associated with stat or offset reproduction. The first copy can be made in three minutes, with 5,000 from the master. The annual rental for the equipment is $720 from the Haloid Company, Rochester, N. Y.

Timesaver—Calculating machine, cylindrical in shape and small enough to be held in the palm of one hand. The operator can add, subtract, multiply, divide, and extract square roots. Write Curta Pacific Co., 420 Market St., San Francisco 11.

Improved organization charting—The new Coffield "interchangeable" organization chart permits changes on lines, boxes and names right on the wall chart. Copies are made photographically. Write Management Charts Control Co., 1731 N. Wells, Chicago 14.

Quick pictures for identification badges—Picture-in-a-minute camera (the Polaroid Land Camera) can be used to make complete employee or visitor identification badges in less than 6 minutes. Write to the Fairchild Camera & Instrument Corp., Robbins Lane, Syosset, N. Y. to receive the whole story in a free, 36-page booklet, "Industrial Security."

Music at work—The Disc Jockey problem may be solved for plants that want continuous music. Buy a magnetic tape recorder-player that plays for eight solid hours without repeating. A high-fidelity version (full 15,000-cycle range) plays four hours. Send inquiry to the Ampex Electric Corp., Redwood City, Calif.

Medical program for small plant—The National Industrial Conference Board has just released a major study on this subject. This report gives ample detail for practical follow-up in your own community. In addition, the report sums up the experiences and practices of six major programs now in successful operation. Good reference material. Survey is No. 134 in the NICA's "Studies in Personnel Policy."

More about new kind of employee magazine—In the June issue you read about a new kind of employee magazine, published right in the pages of a local town newspaper. The following letter from Paul A. Caldwell attests to the value of the method, and gives details that may help you evaluate its possibilities:

"We are beginning our fourth year here at Mooresville Mills (Mooresville, N. C.) with just such a publication as you wrote about, and we have been quite happy with the results.

"Four years ago a survey was made and it was learned that 96 percent of our 3200 employees were regular subscribers to the Mooresville Tribune, weekly newspaper with some 7000 circulation. We then contracted for a 2-page center spread each week, 52 times a year, which costs us $150 per week. Our distribution problems solved, we came up with our own name for the two pages, which are devoted solely to employees and their activities. The publication, Mooresville Medallion, has become a community-wide project.

"With a community and industry as closely related as ours, we feel that this type of publication has been far more successful than we imagined at the outset."

● **Wage and Hour**—*Salary exemption deadline moved again*—Another deadline, October 1, 1953, has been set for employers to conform to Fair Labor Standards Act regulations on matters of non-allowable deductions from salaries of executive, administrative, and professional employees.

The new date is set by Wage and Hour Administrator McComb and involves FLSA regulations, which provide that employees are not exempt if the employer makes deductions from their salaries for absences or other reasons.

New rules on Profit-Sharing and Benefit Plans—According to the Wage-Hour Law, an employer does not have to include in an employee's regular rate "contributions irrevocably made by an employer to a trustee or third person pursuant to a bona fide plan providing old age, retirement, life, accident, or health insurance or similar benefits for employees".

It is immaterial whether the benefit plan is financed from profits or by matching employee contributions or otherwise encourages thrift or savings.

In order for benefit plan contributions to qualify for exclusion from the "regular rate", the Administrator says the following conditions must be met:

Contributions must be made under a specific plan or program adopted by the employer or by a union contract, and communicated to employees.

Primary purpose of the plan must be to provide systematically for payment of benefits to employees on account of death, disability, advanced age, retirement, illness, medical expenses, hospitalization, and the like.

The employer's contribution must be paid irrevocably to a trustee or third person under an insurance agreement, trust or other funded arrangement. The trustee must assume the usual fiduciary responsibilities imposed on trustees by law.

The employee must not have the right to assign his benefits nor the option to receive any part of the employer's contributions in cash instead of benefits under the plan except that, as an incidental part of the plan, the plan can provide for giving the employee in cash all or any part of the amount to his credit:

At the time of severance of employment for reasons other than retirement, disability, or death, or;

Upon proper termination of the plan, or;

During the course of his employment under circumstances specified in the plan and not inconsistent with the general purpose of the plan to provide the benefits mentioned above.

The chief source of dissatisfaction with the regulations on profit-sharing plans has been the rule that the plan is bona fide for Wage-Hour purposes only if the employee has a vested right to receive his share of the profits even if he leaves his employment after the period for which the determination of profits was made. The Administrator has refused to change this requirement.

However, the Administrator did change the provision that the employee must be paid his share either within a reasonable time or upon occurrence of appropriate contingencies. Under the new rules, payment must be made within a reasonable time, or if payment is made irrevocably to a trustee, distribution can be deferred for a stated period or to the occurrence of appropriate contingencies.

The regulation still specifies that the amount paid individual employees may be determined by a definite formula specified in the plan or trust, based on straight-time earnings, total earnings, base rate of pay, straight-time hours or total hours. The new rules, however, add length of service and a calculation on a per capita basis as possible methods of determining the shares.

The new rule makes clear beyond any doubt that incentive plans do not qualify as profit-sharing plans. As before, the employee's share must not be determined, in substance, on the basis of quality or quantity of work. To these disqualifying features, the new rules add attendance, rate of production, and efficiency as bases which must not be used, in substance, to determine the share.

Electronic "brain"

(Continued from page 19)

the 8000 pounds of vacuum tubes, cables, panel boards and dials which crowd the 27 x 27 foot room where the seven-foot-high machine is housed. One man reads the schedule, or data about the network to be analyzed. The other man plugs in the cords and "fluistors" which will simulate that network. A set of demountable scales which fit over the dials translate all the answers directly from electrical units into the gas men's language of inches of water and cubic feet per hour.

Two possible problems are anticipated. Veteran distribution men will have to be convinced that the machine is more accurate than their experience-plus-intuition calculations. Moreover, the street distribution man's language will have to be translated into computer language.

The analyzer is only as good as the information fed into it. That information must be as accurate as can be obtained. The "brain" is not magic—it's science and progress!

Odorization experiences

(Continued from page 18)

(1) *Masking the odor,* where it is released in a confined space and it is desired to immediately alleviate the nuisance by changing the odor to one that is more pleasant or at least less noticeable.

This can be accomplished by the use of "Neutroleum gamma" which is a perfume industry masking agent. It has the combined effect of reducing the intensity of Calodorant odor, changing it to that of household cosmetic, and temporarily suppressing nasal perception.

It can be conveniently applied, in the liquid form as purchased, by means of a household insecticide spray gun, or "Flit gun". It should be sprayed into the area contaminated, or into the air stream supplying the area, as well as on the surface on which the Calodorant has been spilled.

A roughly quantitative estimate indicates that one part by volume of this liquid will neutralize or suppress ten parts by volume of Calodorant liquid (4.5 percent sulfur).

Neutroleum gamma can be purchased from Fritzsche Bros., 816 W. 8th Street, Los Angeles, at a cost of approximately $3.50 per pound or per pint.

Under certain circumstances it may be desirable to also absorb Calodorant that may be spilled, by the procedure outlined above.

(2) *Absorbing the odorant* where spilled, so as to prevent further evolution of vapor.

This can be accomplished by the use of activated carbon which, when spread over the contaminated area, will prevent evolution of vapor and gradually absorb the underlying odorant.

The following table shows the results of experiments, and indicates the quantities and times involved for specific circumstances.

Type of Surface	*Area covered by ½ oz. of Calodorant, square inches*	*Depth of activated carbon layer necessary to prevent escape of Calodorant vapors, inches*	*Time required to absorb Calodorant, hours*	*Minimum quantity of activated carbon required per sq. ft. of surface, lbs.**
Soil	9	1	74	2.6
Asphalt	9	1	361	2.6
Concrete	117	⅜	4	1.0

* Allowing one inch of activated carbon overlap of Calodorant-covered area.

If the Calodorant is spilled on an absorbent surface such as a carpet, through which it may spread laterally, it may be necessary to cover a larger area than the initial spillage. Also, where used on carpeting or other decorative surface, the carbon can be placed on muslin or other thin porous fabric to prevent discoloration of the surface.

Activated carbon of 8 to 14 mesh granule size is recommended. It can be purchased from Allied Carbon and Chemical Company at a cost of $1.00 per pound in 100-pound paper drums. Other grades and sources of activated carbon may be obtainable, but should be checked for comparable absorbent ability by laboratory test.

Market research

(Continued from page 6)

in other phases of our business. I think it is particularly applicable to the problems of sales administration.

We are now in the process of evaluating our entire sales situation with the objective of developing a long-range sales program. We expect this program to incorporate several vital ingredients.

The first ingredient is a careful study and analysis of all the facts now available to us about our market and our past sales performance. The second will be the use of aggressive selling in all competitive areas supported by direct selling and by hard-hitting advertising. The third element will relate to people—sales people and employees. We realize that the best thought out and balanced program is not likely to accomplish very much unless it is adequately manned by capable, well-trained, and enthusiastic sales people, backed by informed and interested employees.

The fourth element of our long-range sales program is expected to be adequate provision for continuing marketing research to re-evaluate our market characteristics, to measure results, and to check on the performance of sales personnel. Such continuing marketing research studies will cover all three markets, but we expect to give particular attention to the residential market. We want to know from time to time whether our sales efforts are actually stemming the tide of electric competition and whether our sales expenditures are returning justifiable results under the conditions that we encounter.

We not only attempt to support our market management with business facts, properly analyzed and interpreted, but we are beginning to apply this approach to the other areas of our management problems.

Equitable Gas has centered in its Economic and Management Research Department all work pertaining to economic analysis, rate making, marketing research, and management research. The facilities of this Economic and Management Research Department are available to our sales executives and also to each of our other department heads.

In most management and marketing research work there is a great similarity in the type of approach followed and in the type of men required. We feel it is more economical and effective to center all of this statistical, business research, and analytical work in one place, thereby obtaining a better load factor, if you please, in use of the necessary qualified personnel.

I have outlined my thoughts on the qualifications needed by present-day gas utility management. In greater detail, I have indicated how we have applied that type of thinking in the management of our marketing problems. I have emphasized that present-day gas utility management people should be capable, personally cooperative and enthusiastic about the gas business. They must also be skilled in the use and application of adequate facts about the business and the environment in which they operate, in order for them to meet the constantly increasing complexities of the gas business.

We are not alone in this approach. As I look about in Pittsburgh, I find that the steel industry, the oil companies, the food processors, the machinery manufacturers, and even the electrical industry are way ahead of us in developing and applying better management techniques. All these industries have made great strides in gearing management to business and marketing facts, reducing the "hunch" in management to the minimum. This, I believe, is the road we must follow to achieve the bright future that lies ahead for the gas industry.

New A.G.A. members

Manufacturer companies

Ferro Corp., Cleveland, Ohio
(John R. McCord, Mgr.-Ceramic Sales)
Flexible Connector Co. of America, Boston, Mass.
(Earl Longfellow, Owner)
General Heat & Air Engineers, Inc., Minneapolis, Minn.
(John P. Samels, President)
Illinois Iron & Bolt Co., Chicago, Ill.
(John McClintock, Mgr., Freeman Div.)
Thermapanels Co., Campbell, Calif.
(Ellis A. Rother, President)
West-Aire Manufacturing Co., Los Angeles, Calif.
(C. T. Gurney, Associate)

Individual members

Jean W. Adamson, Pacific Gas & Electric Co., Hayward, Calif.
Frederick L. Atkin, West Midlands Gas Board, Birmingham, England
Maxine Baggett, Mid-South Gas Co., Forrest City, Ark.
William D. Baker, Wisconsin Power & Light Co., Madison, Wis.
Carl W. Barget, Jr., Transcontinental Gas Pipe Line Corp., Newark, N. J.
Donald E. Barthel, Consumers Power Co., Flint, Mich.
Gordon Bartlett, Niagara Mohawk Power Corp., Utica, N. Y.
Earl C. Berg, Pacific Gas & Electric Co., San Rafael, Calif.
William F. Berreyesa, Pacific Gas & Electric Co., San Francisco, Calif.
J. H. Browning, Southern California Gas Co., Pasadena, Calif.
Jack Caldwell, The Peoples Gas Light & Coke Co., Chicago, Ill.
Burton C. Carpenter, Niagara Mohawk Power Corp., Syracuse, N. Y.
Charles T. Chave, Stone & Webster Engineering Corp., Boston, Mass.
R. L. Conover, Equitable Gas Co., Pittsburgh, Pa.
William F. Crutchley, Hope Natural Gas Co., Clarksburg, W. Va.
Joseph P. Daratt, Niagara Mohawk Power Corp., Syracuse, N. Y.
Robert M. Davis, Laclede Gas Co., St. Louis, Mo.
Alfred V. Day, California Public Utilities Commission, Concord, Calif.
Gerard De Boey, Public Service Electric & Gas Co., East Orange, N. J.
Anthony J. Demse, Milwaukee Gas Light Co., Milwaukee, Wis.
Wanda M. Ewing, United Fuel Gas Co., Charleston, W. Va.
John A. Fairchild, Pacific Gas & Electric Co., Oakland, Calif.
James F. Fairman, Consolidated Edison Co. of N. Y., Inc., New York, N. Y.
John F. Farnsworth, Koppers Co., Inc., Verona, Pa.
James C. Fisher, Consolidated Edison Co. of N. Y., Inc., New York, N. Y.
Harry H. Fitzgerald, Commonwealth Services Inc., Washington, D. C.
Robert H. Franklin, Phillips Petroleum Co., St. Louis, Mo.
Masao Futo, Tokyo Gas Co., Ltd., Tokyo, Japan
Carl J. Geyer, The Lattimer-Stevens Co., Columbus, Ohio
Roberto M. Giannattasio, Argentine Government Oil Fields, New York, N. Y.
Harry Hanson, New England Electric System, Boston, Mass.
Otto Harding, Philadelphia Gas Works Div., U. G. I., Philadelphia, Pa.
Edgar M. Hawkins, Jr., Water, Gas & Electric Depts., City of Danville, Va.
John T. Heffernan, American Meter Co., Seattle, Wash.
Carl B. Herrmann, Northampton Gas Light Co., Northampton, Mass.
Richard W. Hester, Community Public Service Co., Fort Worth, Tex.
William R. Hill, Jr., Public Service Electric & Gas Co., Newark, N. J.
Arthur J. Holland, The San Paulo Gas Co., Ltd., Sao Paulo, Brazil
William A. Holt, The Gas Machinery Co. (Canada) Ltd., Hamilton, Ontario
Charles R. Hopkins, Jr., Hopkins Brothers, Alliance, Ohio
Robert P. Humphrey, General Gas Light Co., Kalamazoo, Mich.
Robert A. Hunter, American Meter Co., Inc., Jackson, Miss.
William S. Hyde, Arkansas Louisiana Gas Co., Little Rock, Ark.
Yutaka Iwamura, Tokyo Gas Co., Ltd., Tokyo, Japan
Frank L. Janosh, Southeastern Michigan Gas Co., Port Huron, Mich.
Clifford V. Jones, Home Gas Ltd., St. Boniface, Manitoba
George V. Justin, Providence Gas Co., Providence, R. I.
George W. Kamin, Cribben & Sexton Co., Chicago, Ill.
Kenneth Kelton, Public Service Electric & Gas Co., Newark, N. J.
Peter J. Killelea, Boston Consolidated Gas Co., Boston, Mass.
Karl K. King, The Manufacturers Light & Heat Co., Pittsburgh, Pa.
Richard G. Koch, Milwaukee Gas Light Co., Milwaukee, Wis.
Louis Langhus, Central Electric & Gas Co., Lincoln, Neb.
Gilbert H. La Piere, Chase National Bank, New York, N. Y.
Philip A. Lathrap, Pacific Gas & Electric Co., Oakland, Calif.
Francis R. Lavan, Public Service Electric & Gas Co., Newark, N. J.
Halvard Lintvedt, Ruud Manufacturing Co., Kalamazoo, Mich.
Joseph F. Mahota, Niagara Mohawk Power Corp., Hudson, N. Y.
Francis P. Maxey, Sharples Chemicals Inc., Philadelphia, Pa.
Glenne R. McArthur, Northwestern Public Service Co., Huron, S. D.
Paul B. McCoy, Hope Natural Gas Co., Morgantown, W. Va.
Arthur McCutchan, Tube-Turns Inc., Louisville, Ky.
Louis W. Mendonsa, California Public Utilities Commission, San Francisco, Calif.
Charles A. Miller, Pacific Gas & Electric Co., San Francisco, Calif.
Charles G. Moorhead, Hope Natural Gas Co., Clarksburg, W. Va.
William M. Myler, Jr., Surface Combustion Corp., Columbus, Ohio
Emile Nenniger, Surveyor, Nenniger & Chenevert, Montreal, Quebec
Leo R. Nuhfer, The Peoples Natural Gas Co., Pittsburgh, Pa.
George E. Otter, Moffats Ltd., Weston, Ontario
Phil R. Payne, Union Gas System, Inc., Independence, Kan.
Norlin A. Peterson, Central Illinois Electric & Gas Co., Freeport, Ill.
R. L. Phillips, Louisiana Power & Light Co., Sterlington, La.
Harry A. Poole, Pacific Gas & Electric Co., Roseville, Calif.
William H. B. Porter, North Western Gas Board, Manchester, England
Samuel C. Pruett, Jr., Public Service Electric & Gas Co., Hackensack, N. J.
Bernard D. Rexroad, Transcontinental Gas Pipe Line Corp., Linden, N. J.
Harold V. Richardson, The Gas Service Co., El Dorado, Kan.
William E. Ross, Pacific Gas & Electric Co., San Francisco, Calif.
John J. Schulz, John J. Schulz Plumbing & Heating, Newark, N. J.
Wilbert W. Selzer, Columbia Gas System Service Corp., New York, N. Y.
Norman F. Sessler, Stone & Webster Engineering Corp., Boston, Mass.
William B. Smith, American Meter Co., Inc., Pittsburgh, Pa.
Chester M. Spree, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
John I. Sprott, Ray Oil Burner Co., San Francisco, Calif.
C. L. Stewart, Pacific Gas & Electric Co., Santa Rosa, Calif.
Roy A. Toomey, Citizens Gas Co., Tuscola, Ill.
H. K. Udell, Mueller Co., Oakland, Calif.
Leonidas I. Vakratsas, Ministry of Industry, Athens, Greece
Clarke H. Van Meter, Bupane Gas Co., Cedar Rapids, Ia.
Gustav E. Wilke, Laclede Gas Co., St. Louis, Mo.
H. Powell Wilson, Jr., American Meter Co., Inc., Denver, Colo.
Orville O. Wilson, Southeastern Michigan Gas Co., Port Huron, Mich.
William A. Wilson, Southern California Gas Co., Los Angeles
Harold F. Winzer, The Peoples Gas Light & Coke Co., Chicago
L. A. Wise, American Meter Co., Inc., Atlanta, Ga.
Raymond L. Withers, Northern Liberties Div., U. G. I., Philadelphia, Pa.
J. E. Wolfraim, The Consumers' Gas Co. of Toronto, Toronto, Ontario
George E. Wolsieffer, Jr., Public Service Electric & Gas Co., Bayonne, N. J.
Edward L. Wynne, American Meter Co., Inc., Omaha, Neb.
Robert L. Yeager, The United Gas Improvement Co., Philadelphia, Pa.
Richard H. Zurn, Southern Counties Gas Co., Tujunga, Calif.

Columbia Gas advances Milne, Davies

ROBERT B. MILNE, formerly general auditor for The Columbia Gas System, Inc., has been named vice-president of The Columbia Gas System Service Corp., New York.

He will be in charge of office real estate and building activities for The Columbia Gas System, Inc., and its service corporation. Harry C. Davies succeeds Mr. Milne as general auditor.

Mr. Milne joined the system in 1929, as assistant secretary in Pittsburgh. In 1931, he was transferred to the New York office where he was in charge of the systems and methods department. He was named general auditor in 1939. Mr. Milne is a member of American Gas Association and was a founder, first secretary and president of the Institute of Internal Auditors.

Robert B. Milne

Harry C. Davies

Mr. Davies joined Columbia Gas System in 1931. He became staff auditor in 1947 and assistant general auditor in 1951.

Boyd vice-president of Republic Natural

W. BAXTER BOYD has been appointed vice-president in charge of geological, exploration and land departments of Republic Natural Gas Co., Dallas.

Mr. Boyd has been active in the petroleum industry for the past 25 years. He is a graduate of the School of Geology, University of Oklahoma.

Mr. Boyd is a member of the American Association of Petroleum Geologists.

McKie heads Rochester sales executives

WALTER G. McKIE, general manager for the Rochester Gas and Electric Corp., has been elected president of the Rochester Sales Executive Club.

Mr. McKie has been with Rochester Gas and Electric ever since being graduated from the University of Michigan in 1922. He has been in every branch of utility sales work since that time. In 1952 he was named assistant general sales manager and earlier this year was appointed general sales manager.

Mr. McKie is a member of American Gas Association and second vice-president, Electric Association of Rochester.

Roberts takes Connecticut engineering post

EDWIN W. ROBERTS has been appointed design engineer for The Connecticut Light and Power Company to succeed Raymond R. Lautenschlager. Mr. Lautenschlager is retiring after 27 years with the company.

Mr. Roberts is a graduate of Drexel Institute of Technology, Philadelphia. Before joining the Connecticut utility, he served United Engineers and Constructors, Inc. as a designer, draftsman and engineering designer. In his new position, he will be responsible for all design detail and specification for company production, transmission and distribution facilities.

Jane Dowdy serves range manufacturer

JANE DOWDY has joined the Caloric Stove Corp. as a field home economist. Miss Dowdy will work with dealers, utilities and schools in the six southeastern states. In addition, she will conduct demonstrations to develop additional gas range and dryer sales.

Miss Dowdy is a graduate of Alabama Polytechnic Institute, Auburn. Before joining Caloric, she served the Alabama Gas Corp., Birmingham, where she participated in a weekly utility TV show.

Brown succeeds LeForge in Chicago

WILTON L. BROWN has been appointed purchasing agent and Edward F. Toussaint named assistant purchasing agent of The Peoples Gas Light and Coke Co., Chicago.

Mr. Brown succeeds Charles LeForge, who died on June 17, after serving as purchasing agent for 20 years. (See July-August MONTHLY, p. 47.)

An employee of Peoples Gas for 20 years, Mr. Brown served as assistant purchasing agent of the company since 1947. Prior to that he had been in the operations department. Mr. Brown holds degrees in electrical and mechanical engineering from Rose Polytechnic Institute, Terre Haute, Indiana. He is a member of American Gas Association and of the Western Society of Engineers.

Mr. Toussaint is a 27-year veteran employee of Peoples Gas. He served as purchasing agent of Chicago By-Product Coke Co., a former subsidiary, for 10 years prior to 1940, when he was appointed to the purchasing department staff of Peoples Gas.

Italian gas output

DURING THE FIRST four months of 1953, Italy's output of natural gas totalled 791 million cubic meters. This represents an increase of 330 million cubic meters, or 72 percent, over the corresponding period in 1952.

Actual consumption during the first three months of the year reached 615.5 million cubic meters.

CONVENTION CALENDAR

1953

SEPTEMBER

1-2 •A. G. A.—NEGA Conference, Boston, Mass.
9-11 •Pacific Coast Gas Association, San Francisco, Calif.
9-11 •Mid-West Gas School and Conference, Ames, Iowa
11 •New Jersey Gas Association, Spring Lake, N. J.
11 •A. G. A. Midwest Personnel Conference, President Hotel, Kansas City, Mo.
17-18 •A. G. A. Accident Prevention Conference, Hotel Statler, Buffalo, N. Y.
27-30 •Controllers Institute of America, Hotel Statler, Boston, Mass.
28-29 •Independent Natural Gas Association, Shamrock Hotel, Houston, Texas

OCTOBER

6-7 •Texas Mid-Continent Oil & Gas Association, Rice Hotel, Houston, Texas
7-9 •A. G. A.—E.E.I. Electronic Symposium, Hotel Commodore, New York, N. Y.
19-21 •American Standards Association, Waldorf-Astoria Hotel, New York.
19-23 •National Metal Exposition, Cleveland, Ohio (A. G. A. will exhibit)
19-23 •National Safety Council, Chicago.
26-28 •A. G. A. Annual Convention, Kiel Auditorium, St. Louis, Mo.

NOVEMBER

4 •A. G. A. Home Service Committee, A. G. A. Headquarters, N. Y.
9-13 •American Petroleum Institute, Conrad Hilton Hotel and Palmer House, Chicago, Ill.
9-13 •National Hotel Exposition, Kingsbridge Armory, New York, N. Y. (A. G. A. will exhibit.)
10-13 •School Food Service Association Annual Convention, Boston, Mass. (A. G. A. will exhibit)
11-13 •Wisconsin Utilities Association, Hotel Schroeder, Milwaukee, Wis.
17-20 •A. G. A. Operating Section, Organization Meetings, Hotel New Yorker, New York, N. Y.
18-20 •Mid-Southeastern Gas Association, annual meeting, Sir Walter Hotel, Raleigh, N. C.
29-Dec. 4 •The American Society of Mechanical Engineers, Statler Hotel, New York, N. Y.

1954

MARCH

1-5 •American Society for Testing Materials, Shoreham Hotel, Washington, D. C.
4-5 •A. G. A. Transmission and Storage Conference, New Orleans, La.
15-17 •Mid-West Gas Association, Fort Des Moines Hotel, Des Moines, Iowa
25-26 •New England Gas Association, Hotel Statler, Boston, Mass.

Personnel service

SERVICES OFFERED

Lawyer-Corporate Secretary—17 years' experience in gas industry, including background in sales management, corporate secretary with experience in SEC matters, public utility law, insurance and stockholder relations. Available to gas operating utility or transmission company—July 1953. **1741.**

Stockholder-Public Relations—Twenty years' top-level accounting, finance, stockholder relations experience in New York office of major utility. Seeking position, preferably in far west, in stockholder, public, employee relations. Presently write, design, produce annual report, etc. Accounting graduate, post-graduate college work in protessional writing, graphic arts design and production. Under 40, married, children. **1742.**

Project Engineer—9 years in the design and development of gas and electric fired appliances. Thoroughly familiar with the characteristics of all types of gases and their effect on the ultimate product. Have intimate knowledge of A. G. A., Underwriters, ASA procedures. Understand production and field service problems. Desire permanent position of greater responsibility. **1744.**

Manager—Medium sized gas company or group of small properties. Interested in becoming associated with larger operation. Experience covers all phases of general sales management, and general management with manufactured gas utility as well as propane-air plants serving bottled gas beyond the mains. Outstanding record proves ability covering administration of operations and new business. Will have excellent reference. Would be available the latter part of July. **1745.**

M.A. in Economics—Experience in research and analysis of corporation laws and taxation; editorial and writing ability. Desire change to any position of responsibility and future. Young, veteran World War II and Korea. **1746.**

Safety Engineer—College trained with five years' engineering and personnel experience (including industrial relations) desires permanent position in Middle West. **1747.**

Operating Executive—Diversified experience in sales and operations of manufactured, natural and LP gases, desires to work in industry or represent manufacturer. Presently in business as co-owner but will be available about September 15th. **1748.**

Manager—Experience with both natural and bottled gas operations. Considerable experience in building new business and construction. **1749.**

Manager—Small or medium size natural gas utility. Presently employed in a responsible position in engineering and operations department of natural gas utility having approximately 250,000 meters. Thoroughly experienced in distribution engineering, field operations, pressure regulation, industrial gas engineering, and office management. (35). **1750.**

Gas Engineer-Salesman—With 22 years' experience in residential and industrial sales, construction, modernizing gas plant, market surveys, public relations. Wants new territory to develop. **1751.**

Administrative Assistant to Executive—Adaptable, dependable, Phi Beta Kappa, Officer World War II. Can write, lecture, handle people. Taught college English to engineers, 6 years major university. Editorial, public relations, personnel, trainee for sales, etc. Now near New York City, will relocate. Married (33). **1752.**

POSITIONS OPEN

Manufacturer's Representatives to sell high-quality old line gas boilers, furnaces, floor heaters and conversion burners on commission. Men with established trade in non-competitive lines will be considered. We have several choice, protected territories available. You must be aggressive and qualified to handle heating sales. **0692.**

Administrative Vice President in 38-45 year age bracket. Qualified to coordinating operating, commercial, and accounting functions and administer company's organization and operations. Operating and/or engineering experience essential. Familiarity with rate case preparation and presentation, accounting, and sales promotion desirable. Preferred consideration given to those with multi-utility, combination experience, such as electric-gas, telephone-gas, electric-water, telephone-water. Eastern location. Consideration given only to those submitting detailed resumes, including compensation in present employment. Starting salary range (dependent on qualifications) $13,500-$20,000. **0694.**

Vice President, Operations—in 38-45 year age bracket. Qualified to assume full, final responsibility for operations, engineering, and construction. Operating and engineering experience absolute requirement; familiarity with rate analysis, labor negotiations, analysis of manpower requirements desirable. Sufficient experience, knowledge and background to handle all operating and engineering problems of diversified utilities company. Multi-utility experience absolute essential, such as combination electric-gas, telephone-water, etc. Eastern location. Consideration given only to those submitting detailed resumes, including compensation in present employment. Starting salary range (dependent on qualifications) $12,000-$15,000. **0695.**

Manager Manufactured Gas Utility. Administrative and sales directing abilities absolute requirements; technical background desirable. Permanent position and substantial opportunity for qualified person. Replies confidential. Submit resume of education, experience and salary requirements. **0698.**

Gas Appliance Engineer—to develop new products per A.G.A. requirements and product design specs for mass production of water heaters and space heaters. Located within 150 miles of Cleveland. Your reply held in confidence. **0699.**

Gas Engineer—Growing natural gas company located in north central area has opening for gas engineer experienced in preparation of material for presentation before regulatory bodies and in natural gas transmission or distribution operations. Salary commensurate with ability and experience. Replies confidential. **0700.**

Graduate Engineer—Growing natural gas company located in north central area has opening for recent graduate for engineering work in connection with natural gas transmission and distribution operations. Some experience in field desirable but not essential. Salary commensurate with ability and experience. Replies confidential. **0701.**

Engineer—Manufacturer of gas boilers requires competent engineer with managerial skill for development production and field service. Position offers responsibility, permanency and salary commensurate with ability and experience. Present location in New York metropolitan area. **0702.**

"PEP" sales drive

(Continued from page 29)

booklet not only for the restaurant operator but for those in charge of institutional feeding operations.

Two stage presentations are available for those who have facilities for larger meetings. "Mr. Flameless and Mr. Flame" is a hard-hitting stage presentation demonstrating the advantages of gas for commercial cooking. "What So Proudly We Hail" is a clever production for presentation before groups and associations. Various characters in symbolic costumes portray the many advantages of gas during a dialogue between a restaurant operator and commercial gas salesman.

A textbook, "Commercial Kitchens," prepared essentially for commercial gas men, has found wide acceptance among educators as it contains complete details on kitchen planning, modernization, layouts and other pertinent items.

Self mailers especially designed to fit into the P. E. P. campaign are available. No. 1, "It Pays to Replace," presents the very latest in commercial equipment. No. 2, "Delivering New Performance," offers a varitey of new, fast-recovery, fat-saving deep fat fryers. And No. 3, "Performance Counts at the Counter," shows new streamlined gas counter appliances in individual units and matched series.

Other direct mail literature available from the A. G. A. Commercial Cooking Bureau will help put more gas equipment on your lines during the P. E. P. Campaign. Six pointed pieces tie in with your sales policy.

In addition, the $1,000 P. E. P. Prize Contest sponsored by GAMA offers three $300 cash awards with three achievement award plaques to companies making the best sales record in their respective size classifications. Send for the contest rules and entry blank and enter this contest.

I have listed only the high spots on the available materials. There are also banners and streamers for showroom display, stickers and other sales promotion aids to put pep into P. E. P.

Be one of the companies that will gain through participation in this three-month national promotion. Manufacturers will benefit by increased sales of equipment and better trained dealer salesmen. Dealers will profit by increased equipment sales, better trained sales personnel, better equipment, fewer complaints and more satisfied customers. Customers will benefit by the use of more satisfactory equipment which is less expensive to buy and more economical to operate.

Whether you merchandise or simply promote sales, you cannot afford to miss this golden opportunity to get this increased, valuable gas load.

Get on the band wagon and kick off the P. E. P. Campaign with a Bang!

Performance—Economy—Profit!

Let's make it nationwide! *You* can be the leader in your league!

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